NEW BOOKLETS AND LEAFLETS

Direct Advertising of manufacturers received recently.

Crystal

A broadside has been received from the Crystal Refrigerator Co., Fremont, Nebr., illustrating and carrying specifications on two series of refrigerator cabinets, one for the home order and the other for apartment installation. All of these models are designed to be equipped with electric refrigeration.

The models which are designated as home refrigerators are available in a variety of finishes which include the usual porcelain and white lacquer combination, as well as models with a green trim around the doors and a green conventional design in the center of each door.

The all-steel apartment models are in most cases in the smaller sizes, tending to be tall and slender to fit in with the general scheme of apartment construction.

Banta

We have received from the Banta Refrigerating Co., Clearfield, Pa., a 52-page catalog (8x10) showing the complete line of Banta standard refrigerators. Contained in this catalog are photographs and specifications on models suitable for practically any commercial application.

Paris

The Sanderson-Harold Co., Ltd., Paris, Ontario, has sent in their catalog showing refrigerators for use in either domestic or commercial application. A special model is shown designed for electric refrigeration only, equipped with hanger bolts and a hole in the back to permit entrance of the copper tubing. Photographs of a number of apartments and institutions in which these cabinets are being used are included in the catalog.

L. G. S.

From the L. G. S. Manufacturing Co., Indianapolis, Ind., comes a booklet briefly describing and illustrating a number of applications of the L. G. S. spring clutch. The L. G. S. clutch is made in three general types: the ratchet type, the manual type and the centrifugal type. Each of these is described and illustrated in the booklet.

Lorillard

A 42-page catalog has been received from the Lorillard Refrigerator Co., Kingston, N. Y., illustrating various types of refrigerating equipment designed for use in hotels, restaurants, hospitals, clubs and similar establishments. This equipment is sold by Albert Pick & Co., Chicago, L. Barth & Co., New York, and the John Van Range Co., Oakley, Cincinnati. Among the models which are illustrated and described are the general utility refrigerator, the small restaurant refrigerator, the heavy duty storage refrigerator, and a number of special models for keeping oysters, fish, cubed ice and ice cream.

American

A 33-page catalog (9x6) has been received from the American Refrigerator Corp., Peru, Ind. The catalog contains illustrations and specifications on a number of refrigerators for domestic installation. Cross-sections of a number of different types of wall construction indicate the materials which are used in different models.

Ice-O-Matic

A four-page (4x12) folder has been received from the Williams Oil-O-Matic Heating Corp., Bloomington, Ill., announcing the new Ice-O-Matic electric refrigeration unit manufactured by that company.

INTERNATIONAL NICKEL CO. ISSUES PLAN BOOK ON 1928 ADVERTISING CAMPAIGN

The International Nickel Co., 67 Wall St., New York City, is sending to its manufacturer-customers an elaborate 23-page book (11 x 14) entitled, "Planning Ahead for Monel Metal." The book deals almost entirely with the 1928 advertising campaign of the International Nickel Co. in a number of popular magazines as well as trade and professional publications, and is designed to create buyer demand for products using Monel Metal.

A particularly comprehensive campaign is to be carried on in the trade publications and copies of the advertisements which will be run in them are illustrated in the book. Statements as to the coverages of the various publications are given.

In addition to the magazine advertising, various types of direct mail literature designed for popularizing Monel Metal in a wide variety of applications is illustrated. This direct mail literature is made available by the International Nickel Co. to manufacturers using Monel Metal for distribution to their customers.

Van Aernam with New York Power and Light Corp.

J. H. Van Aernam has been appointed manager of merchandise sales for the New York Power & Light Corp., with headquarters in Albany. Mr. Van Aernam will supervise all activities in connection with merchandising operations.

"PLEASE CHANGE MY ADDRESS"

Recent movements of Electric Refrigeration News subscribers as indicated by requests for changes in mailing addresses.

Addis, W. J., from 1403 Methyl St., Pittsburg, Pa., to 2823 Hudson Ave., Youngstown, Ohio.

Albatross Steel Equipment Co., from Box 216, Santa Monica, Calif., to Postoffice Drawer "Z," Sawtelle, Calif.

Cornell, O. D., from 200 Hudson St., New York, N. Y., to 432 Mountain Ave., Westfield, N. J.

Dahl, H. A., Plaza Hotel, Milwaukee, Wisc., to Oak Grove Hotel, Minneapolis, Minn.

Firke, O. A., from c/o Nizer Corp., 565 W. Washington Blvd., Chicago, Ill., to c/o Finke Creamery Co., Scottsbluff, Nebr.

Garvin, E. W., from 1519 Alton St. to 231 Lavine Ave., Pititsburg, Pa.

Harding, C. E., from 325 Milwaukee Ave. to 18138 Cardoni, Detroit, Mich.

Killian, C. M., from 402 Wynne-Claughton Bldg. to 207-8 Bona Allen Bldg., Atlanta, Ga.

Lowell Sales Branch, from 10-12 Hurst St., Lowell, Mass., to 743 Boylston St., Boston, Mass.

Marschalk & Pratt, from 49 West 45th St. to 369 Lexington Ave., New York, N. Y.

May, L. E., from Cleveand Electric Illuminating Co., Conneaut, O., to Cleveland Electric Illuminating Co., Painesville, O.

Moll, J. M., from 1920 12th Ave. So., Birmingahm, Ala., to c/o Central Hudson Gas & Electric Co., 129 Broadway, Newburgh, N. Y.

Nordstrom, M. V., from c/o Servel Corp., 230 So. Clark St., Chicago, Ill., to 201 No. Grove Ave., Oak Park, Ill.

Olsen, Lew, from Box 172, R. D. 3, Pleasantville, N. J., to 158 W. 43rd St., New York, N. Y.

Richards, R. J., from Wilmar Apts., 225 W. Herman Ave., to Mayfair Apts., 503½ W. Norman Ave., Dayton, O.

Williams, M. D., from 326 South Wells St., Chicago, Ill., to 415 East Congress St., Detroit, Mich.

REQUESTS FOR INFORMATION

The following inquiries have been received by Electric Refrigeration News. Readers who can supply information on these subjects are invited to write at once, referring to the Query number.

Wants a 20-Pole Motor

Query No. 59: "Is there any domestic refrigerator in household use with a motor that turns only 350 R. P. M.?

"Is there data available giving percentage of domestic installations to date by the various manufacturers?"

Requests Advice on Pros and Cons of Multiple Hook-Up

Query No. 60—"We are very much interested in securing any and all information pertaining to the multiple hook-up.

"Our engineers have come out flatly against this type of installation for refrigeration in apartment houses, and have given us their views concerning the inadvisability of going into this type of installation. Undoubtedly there are reasons other than those they have given us, and it is our desire to compile all the information available which deprecates the multiple hook-up.

"You probably have in your files just such information and we are wondering if you would be kind enough to write us giving us such authenticated data as you may have.

"As we are engaged in a very rather serious controversy over the advantages and disadvantages between the multiple hook-up and the individual self-contained unit in apartment installation, we would greatly appreciate your giving this matter your immediate and careful attention."

Interested in Store Display Cases for Meat and Fish

Query No. 61.—"As one of your readers, would it be possible for you to give me the name of the manufacturers of the 'Brech' or 'Brecht' store display cases, for meat and fish markets?

"Would you also be kind enough to give me the names of a few manufacturers of *steel* display meat or fish cases or counters for stores, which can be equipped with electric refrigeration.

"I would greatly appreciate any information you could give me, and I thank you very much for any information you will send me."

Wants Evaporators and Condensers for SO_2 Domestic Unit

Query No. 62—"Can you advise us from whom we can buy evaporators or cooling units for our electric household refrigerators, using SO_2 as a refrigerant? We would also like to know from whom we can purchase condensers for the same unit."

SUBSCRIPTION RATE OF THE NEWS TO BE INCREASED APRIL 1

Effective April 1, 1928, the annual subscription rate for ELECTRIC REFRIGERATING NEWS will be increased to $1.50 per year. New subscriptions received on or before April 1 will be accepted at the old rate of $1.25 per year, or two years for $2.00.

Note to subscribers: Please bring this notice to the attention of your friends. Upon request, subscription blanks will be furnished for distribution to members of your organization. Manufacturers and distributors are invited to send in lists of dealers. Sample copies of the NEWS will be mailed to all names furnished.

Present Subscribers May Extend Term at Old Rate

Please note that present subscribers may take advantage of the old rate in effect until April 1 by extending the term of their subscriptions one, two or three years. To extend your subscription one year, send $1.25, two years $2.00, three years $3.00.

Until April 1 group subscriptions will also be accepted at the old rate, namely five for $5.00, or for any club of more than five at $1.00 each.

Now is the time to take advantage of these attractive offers which will not be available again at any

Rate of $2.00 Per Year to be Announced Later

According to present plans, the subscription rate of ELECTRIC REFRIGERATION NEWS will eventually be increased to at least $2.00 per year. These advances are necessary owing to the increased size of the paper and in order that the subscription revenue may more nearly cover the cost of postage and other items of expense which are properly chargeable to the circulation department.

The intermediate rate of $1.50 per year will be offered for a limited time after April 1, and an announcement will be made later as to the date on which the $2.00 rate will become effective.

THA LANDLORD, THA PROSPECT, AN' THA RITZY ICE BOX

From the Line-O-Type Column of the Chicago Tribune, Feb. 26.

Dick: That landlord of oures has got a hunch that maybe we aint gonna sign a new lease on May 1st so last week he installs a electric ice box. That thing is okay as far as saving kale on buying ice and ritzing visitors with ice cubes in their gin bucks is concerned, but that noise it makes when that motor is running wood drive you nutz. If it's a 4 cylinder job, I gotta idea that 3½ of them aint hitting. Well, there's one vacant flat in that building an last night the rent hog was showing it to a prospective check-in. After showing him tha place, he drags him up to our dump to see that ice chest wich he promises to also put in that vacant flat. Here's where me and tha B. and C. get a laugh that darn near caved our sides in. Tha landlord first tells tha prospect that he'd save at least 7 bucks a month on ice and tha prospect cups his ears, but he dont seem able to hear so after tha landlord repeated it 3 times tha guy just nods his head. Then it was explained that there woodn't be any ice man dirtying up tha kitchen floor with muddy shoes and again tha guy gets this repeated an nods his noodle again. After tha ice cube arrangement was praised in a five minute speech, tha gink taps tha landlord on tha shoulder and points to tha parlor. When they get there tha prospect says "That rotten ice box is makin so damn much noise I can't hear a word of what your saying."

DUKE BAKRAK.

DIRECTORY CORRECTIONS

Changes in the Electric Refrigeration Directory as published in the January 4 issue. The complete directory will appear again in the March 28 issue.

Downing Manufacturing Co., Downing, Wisconsin. New York Export office, 55 West 42nd St.

Manufacturers of commercial refrigerators. Specializing in refrigerator display counters, for use with either ice or electric refrigeration.

D. C. Coolidge, pres.; E. C. Wagner, vice-pres.; R. A. Cleveland, sec. and treas.

Williams Oil-O-Matic Heating Corp., Bloomington, Ill.

Manufacturers of ICE-O-MATIC domestic electric refrigeration units.

C. U. Williams, pres.; W. W. Williams, vice-pres. and secy.; Sigmund Livingston, vice-pres.; Adolph Wochner, treas.; C. U. Williams, general sales mgr.; A. T. Simmons, director of foreign sales.

Sanderson-Harold Co. Ltd., Paris, Canada.

Manufacturers of cork insulated refrigerators for household, apartment and commercial use.

E. M. Harold, secy-treas.

Dry-Kold Refrigerator Co., Niles, Mich.

Manufacturers of DRY-KOLD household and commercial refrigerators and display cases.

W. F. Harrah, pres.; Joseph P. Troost, vice-pres.; W. C. Whitcher, treas.-gen. mgr.

McDougall Co., Frankfort, Ind.

Manufacturers of domestic refrigerators for use with either ice or electric refrigeration.

J. M. Coulter, douestic science division.

Dunlevy Leaves Climax

Lorimer Dunlevy has resigned his position as sales manager for the Climax Engineering Co., of Clinton, Iowa, effective March 15th, to take on new duties as general sales manager for the O. E. Szekely Co., of Holland, Mich., makers of commercial airplane engines.

THE CONDENSER

A CLASSIFIED COLUMN OF OPPORTUNITY

REPLIES to box number advertisements should be addressed to Electric Refrigeration News, 554 Maccabees' Bldg., Detroit, Mich.

ADVERTISING RATES—this column only:

POSITIONS WANTED (special rate if paid in advance): 50 words or less, one insertion, $2.00, additional words 4 cents each. Three insertions, $5.00.

POSITIONS AVAILABLE, For Sale, Business Opportunities, and all other classifications (special rate, if paid in advance): 50 words or less, one insertion, $3.00, three insertions $8.00, additional words, 5 cents each.

LINE RATE (open account): 50 cents per line.

POSITIONS AVAILABLE

"Service men wanted with Isko experience. Unusual opportunities for the right men. State salary desired and past experience. Box No. 65."

"Wanted, District Sales Representative. Well known manufacturer with complete line of domestic and commercial electric refrigeration has an interesting opening in the south and southeast. Applicant must have a successful record of selling major appliances to central stations and dealers. Experience in refrigeration is not as essential as ability to prove past productivity and a large central station following. Reply must be in detail to secure consideration. Address Box No. 66."

Would like to get in touch with a refrigerating engineer to complete an idea on electric refrigeration. Electric Refrigeration News, Box No. 68.

POSITIONS WANTED

ENGINEERING EXECUTIVE, connected with electric refrigeration for ten years, desires connection with responsible manufacturer in temporary or permanent capacity as consulting or chief engineer. Capable of taking complete charge of engineering and manufacturing. Inventor and owner of widely used patents. Well acquainted with patent situation. Box 52.

SALES EXECUTIVE seeks new connection. Available for headquarters or branch supervisory position. Appreciable experience in sales and sales executive capacities, including electric refrigeration identification and much public utility and industrial contact. High grade references as to ability, performance, etc. Eastern location preferred but not indispensable. Electric Refrigeration News, Box No. 67.

DISPLAY FOODS
Endorsed By
General Electric Co.
Copeland Sales Co.
Trutulife Wax Products Co.
27 Erie St., Milwaukee, Wis.

Refrigeration Patents
Over 20 Years' Experience as a Specialist In Electric Refrigeration
H. R. Van Deventer
SOLICITOR OF PATENTS
342 Madison Avenue, New York City

Increase Your Earning Power
Study Electric Refrigeration at Home in Spare Time
Complete, practical Course, covering all phases of the industry. Great aid to Executives, Salesmen, Installation and Servicemen.
Send for FREE Illustrated Catalog.
UTILITIES ENGINEERING INSTITUTE
Dept. 42, 3120 No. Clark St., Chicago

Subscription Order

IMPORTANT NOTICE—This offer holds good only until April 1, 1928. After that the subscription rate will be $1.50 per year or three years for $3.

FOREIGN: After April first, the rate for all countries other than the United States and possessions will be $2 per year or three years for $5.

RENEWALS: Old subscribers may extend the period of their subscription at the old rate until April first. If you use this coupon for renewing or extending your subscription, please indicate by checking this square ☐ so that the possibility of duplication may be avoided.

ELECTRIC REFRIGERATION NEWS,
554 MACCABEES BUILDING, DETROIT, MICH.

Please enter my subscription to Electric Refrigeration News.

United States: ☐ $1.25 per year ☐ Two years for $2.00.
Foreign Countries: ☐ $1.50 per year.

I am enclosing payment in the form of
☐ Check ☐ P. O. Order ☐ Cash ☐ Stamps

Name .....

Street Address .....

City and State .....

Remarks: .....

Special Services Offered by Electric Refrigeration News

"Fundamental Principles of Refrigeration," by C. B. Ryan, Jr., and J. F. Henrickson, 20 pages with cover, size 3⅜" by 6½", ten copies postpaid for $1.00. Quantity price $5.00 per hundred copies.

Manufacturers, distributors, dealers and central stations should place this interesting and informative little booklet in the hands of every member of their organizations. While it in no way takes the place of a more complete treatise on the subject of electric refrigeration, it provides valuable information on the subject and will stimulate an interest in further study.

"Causes of Food Spoilage," by C. B. Ryan, Jr., and J. F. Henrickson, 12 pages with cover, size 3⅜" by 6½", one dozen copies postpaid for $1.00. Quantity price $5.00 per hundred.

This booklet is not only valuable to sales and service men, but it is also suitable for distribution to prospects for commercial and household equipment.

"Electric Refrigeration Record and Service Data Card." A file card, size 5 by 8 inches, for recording complete data regarding the installation and service of each machine installed. Price $2.00 per hundred in any quantity.

This card has been worked out on the basis of practical experience and has been approved by public utility organizations. It is particularly suitable for small companies, having only a limited number of installations and where the cost of printing the required number of cards would be excessive. ELECTRIC REFRIGERATION NEWS has provided this service in the interest of economy and to promote the maintenance of accurate records of service costs.

ELECTRIC REFRIGERATION NEWS

The business newspaper of the electric refrigeration industry

VOL. 2, NO. 14, SERIAL NO. 38 | DETROIT, MICHIGAN, MARCH 14, 1928 | Entered as second class matter August 1, 1927, at the Post Office, Detroit, Michigan. | PRICE TEN CENTS

NEW YORK EDISON TO HOLD THIRD ANNUAL REFRIGERATION SHOW

Colored Designs and Novelty Combinations to Feature Exhibit

The latest in electric refrigerators, including cabinets in bright colored designs and novelty combinations, and several types of commercial equipment, will be on display for the general public when the Third Annual Refrigeration Show is held March 19-31, inclusive, in the commodious showrooms of the New York Edison Co., at 130 East 15th St., New York City.

This year's display promises to be the most interesting of any yet assembled. The futuristic motif in color schemes will be apparent in the offerings of several manufacturers. Not only will combination refrigerators and kitchen cabinets be exhibited, but some of these same combinations with even a small range attached are scheduled to be placed on view. There will also be the usual extensive lines of the many handsome refrigerators, ranging from the largest to the smallest, which are now so popular for domestic use in homes and apartments.

The mechanism of several of the commercial makes will be shown, too, and some of the latest types of water coolors. The popularity of the show grows every year, keping pace with the rapidly mounting sales of the electric refrigerators, and this year's promises to be bigger and better than ever. It will be free to the public as usual, and the doors will be open from 9 a. m. to 6 p. m.

BIECHLER ANNOUNCES CHANGES IN FRIGIDAIRE SALES ORGANIZATION

Callaway Named Manager of Branches—Harlan in Charge of Distributors

E. C. Biechler, president and general manager of Frigidaire Corp., announces changes in the field organization placing all distributors under one administrative head and factory branch operations under another. The change became effective on March 10. This readjustment of the field organization also results in changes in the executive organization in Dayton, according to Mr. Biechler.

Under the new management, C. A. Copp, former commercial sales manager, becomes assistant to Mr. Biechler, taking the place of R. F. Callaway, who is named manager of branch operations, with 30 factory branches under his direction. J. A. Harlan, formerly household sales manager, now is sales manager of distributors, numbering 34. H. W. Prior has been transferred to the European organization and will have supervision over all financial affairs of the organization in Europe, with headquarters at Paris.

The commercial sales division, formerly separated from the household division, is now a part of the corporation's general sales department and is under the direction of Mr. Callaway and Mr. Harlan as the heads of the distributor and factory branch organizations.

R. E. Smithson, formerly service manager, and E. A. Fisher, former supervisor of branches, are named as assistants to Mr. Callaway. C. J. Vandoren, formerly assistant commercial sales manager, is Mr. Harlan's assistant now. H. F. Lehman has been promoted to the division of service manager.

Under this new plan the distributor operations will be served by four regional managers, H. D. Wehrley, George S. Jones, Jr., S. R. Prugh and J. B. Reeves, who will be under the direction of Mr. Harlan. Contacts between the factory branches and the Dayton offices will be maintained by H. H. Wampler, R. H. Graham and P. K. Abry, regional managers who will be directed by Mr. Callaway.

It is believed that the changes which have been made, namely, the placing of the distributor and branch activities under separate heads, will make it more easy for the corporation to handle the constantly widening field for electric refrigeration.

McKean Company Now Handling Copeland in Pittsburgh

Rapid progress is reported by the McKean Company of Pittsburgh, recently organized to take over the Copeland Electric Refrigerator distributorship in the Pittsburgh district. At a recent sales meeting an attendance of 102 was reported.

A Triumph of Electric Refrigeration

Miss Katherine Spengler of the Commonwealth Edison Electric Shops, Chicago, demonstrates how to make real ice cream in a Servel electric refrigerator. See article in column 2 below.

MOUSSE VS. MUSH-- A WOMAN SPEAKS ON "DAINTY DESSERTS"

A Tirade, But She Tells How to Get Real Results

By Dorothy Dignam

I'm neither a home economics expert nor an expert critic on home economics.

But the truth of the matter is that many of those "delicious frozen dainties so easily and quickly prepared in the Frost Bite Electric Refrigerator" come out looking like a January thaw, or else they're as hard and flinty as a chip off a glacier.

And, like all great reformers, I rise to remark that something ought to be done about it!

We've been selling electric refrigeration to womankind largely on the mouth-watering basis.

We show them, in full-color illustrations, a maple pecan mousse with cocoanut-marshmallow-butterscotch sauce, decorated in red cherries, green angelica and pink whipped cream.

And the simple-minded homemaker, who, at best, soars no higher than lemon cream pie for company dessert, yearns to try her skill with the little freezing pans.

So it doesn't require very high-powered

(Continued on Page 13, Column 2)

TEXAS KELVINATOR DEALERS ATTEND SCHOOL AT FORT WORTH

Kelvinator dealers and distributors from west Texas spent the week of February 28 in Fort Worth attending a Kelvinator school conducted by H. H. McGehee from the factory in Detroit. The school was under the auspices of the Southwest Builders' Supply Company, 200 Jennings Avenue, Fort Worth. The following attended: W. J. Bisso, M. J. Corbin, Galveston; Mrs. Edwin Young, Miss Hilda Albin, L. L. Book, San Angelo; E. A. Oder, Cisco; C. J. Hinkle, M. D. Hillyer, Eastland.

REAL ICE CREAM

Made in The Electric Refrigerator

This is not a mousse! It is rich, but it has the ice cream consistency. The recipe is the one used in Chicago, at the Commonwealth Edison Electric Shops' demonstration of Servel electric refrigerators, Miss Catherine Spengler in charge.

1 cup sugar	¾ cup scalded milk
¼ cup flour	¼ teaspoon salt
2 eggs	½ teaspoon vanilla

1 pint whipped cream

Combine sugar and flour; add the beaten eggs and the scalded milk. Cook in double boiler for 10 minutes. Add salt and vanilla. When cool, fold in the whipped cream and place in deep freezing tray. Stir gently every half-hour for the first two hours. This mixture freezes perfectly in eight hours in a Servel kept at 40 degrees, but it is best to experiment the first time in your own refrigerator.

MATHESON RESIGNS SALES DIRECTORSHIP OF KELVINATOR CORP.

C. K. Woodbridge, president and general manager of Kelvinator Corporation, announces the resignation of Charles W. Matheson, vice-president in charge of sales, effective February 27. Mr. Matheson, who has been a sales executive in the automotive field for many years, has joined the sales department of the Chrysler Corporation, Detroit.

In an executive bulletin, mailed to all Kelvinator dealers, Mr. Woodbridge said: "Mr. Matheson has contributed much to our success through his knowledge of sales organization, his habit of industry and his enthusiasm for the possibilities of Kelvinator. All of us wish him tremendous success in his future responsibilities."

MILWAUKEE DEALER ASSOCIATION PLANS MEETING AND SHOW

Committee Appointed to Standardize Installation Work

The newly formed organization of refrigeration dealers in Milwaukee has adopted the name of Refrigeration Dealers Association, and plans to hold a general open meeting in the auditorium of the Public Service Building of the Milwaukee Electric Railway & Light Co., March 15. Everyone connected with electric refrigeration business, including employees, has been invited to attend. This will be the first meeting of its kind in Milwaukee.

The general meeting will precede the annual home show which opens in the Milwaukee Auditorium March 17. A complete electric refrigeration exhibit will be staged in connection with the home show under the direction of the association. The *Milwaukee Journal* will issue a special electric refrigeration supplement prior to the show.

A new committee has been named by the association to study the standardization of installation work, with special reference to apartment jobs. Members of this committee include E. H. Carver, of the Wayne Co., *chairman;* Ben Wisnberg, representing Frigidaire; Gross Hardware Co., representing Norge; and J. W. Hill, president of the association, representing Kelvinator.

FROZONE CORP. ORGANIZED TO MAKE AND SELL NEW UNIT

The Frozone Corp., 709 Chestnut St., Philadelphia, Pa., has been recently incorporated for the purpose of manufacturing and marketing Frozone electric refrigeration units. It is claimed that the unit is fool-proof, may be shipped anywhere already charged, and will only require plugging in as a matter of installation. It is stated that this is practically a closed corporation with only a few shares of stock offered to the public.

DIRECT ADVERTISING PLAN FOR UTILITIES NOW READY TO USE

N. E. L. A. Committee Approved Portfolio of Material for Sales Campaign

Final approval was given to the 1928 "Selling the Idea" program for central stations, at a meeting the Electric Refrigeration Committee of the National Electric Light Association held at the Edgewater Beach Hotel in Chicago, March 7. Advance copies of the portfolio showing the direct advertising material, newspaper advertisements, and suggested plans for co-ordinating the local activities of public utility companies with those of distributors and dealers, were distributed at the meeting. After minor corrections in the text have been made by the printer, the portfolio will be mailed to merchandising executives of all N. E. L. A. member companies by G. B. Richardson, chairman of the committee.

The plan, the feature of which consists of a series of twelve personalized mailings designed to sell the idea of electric refrigeration for the home, and which was originally prepared by Chairman Richardson for use in territory served by the Texas Power & Light Co., was again given enthusiastic endorsement by central station men and the fullest co-operation of the manufacturers was promised by representatives of the leading companies present at the meeting.

The advertising plan is extremely flexible and may be used in whole or in part, as desired. None of the material is copyrighted and any desired changes may be made to suit local conditions. Arrangements have been made with one producer which will give the central stations the benefit of any economy gained by quantity production of the mailing pieces, but any printer may be employed to produce similar

(Continued on Page 3, Column 3)

TRANSPORTATION OF REFRIGERANTS SUBJECT AT A. S. R. E. MEETING

New Development of a High Pressure Refrigerant Discussed

"Transportation of Refrigerants and Problems Involved" was the subject of a paper presented by L. A. Belding of the American Welding Co., a subsidiary of the American Car & Foundry Co., at a meeting of the New York section of the American Society of Refrigerating Engineers, held at the Machinery Club, 50 Church St., New York City, on February 15. Forty-eight members and guests were present.

Following Mr. Belding, high pressure refrigerants were discussed by Harry D. Edwards, chairman of the New Development Committee. Mr. Edwards gave the society some interesting sidelights on new problems that are looming before the refrigeration field with particular reference to a high pressure refrigerant which employs pressures ranging from 600 to 700 lbs.

In Mr. Belding's talk the various problems entailed in furnishing the necessary transportation equipment for the handling of refrigerants, such as anhydrous ammonia, sulphur dioxide, methyl chloride and propanes and butanes, were outlined. He pointed out that the refrigerants must arrive at the premises of the consumer in the same pure and concentrated forms in which the products were manufactured. In other words, there cannot be any solution, or other change which would affect the efficiency of the chemical. All transportation is carried on under the jurisdiction of the Interstate Commerce Commission and the American Railway Association. The Interstate Commerce Commission is concerned with the safety of tank cars and has laid down definite rules for the construction of these carriers.

Slides were used by Mr. Belding to show the gradual evolution of the standard tank car and the problems involved in the designing of this class of apparatus. Of special interest was Mr. Belding's description of a tank car for the transportation of helium. A car weighing 100 tons is capable of transporting only one ton of helium. The lecture was also augmented by a motion picture giving a more complete idea of the manufacturing methods, with particular reference to the riveting involved in the fabrication of tank cars.

Stephen Bennis, 130 East 15th St., New York, is president of the New York section of the A. S. R. E. and James Larkin is secretary.

UNUSUAL FEATURES IN COMPRESSOR MADE BY HAVEN MFG. COMPANY

The Haven Manufacturing Co., of Milwakuee, Wis., has recently been organized with fractional horsepower refrigerating machines for both household and general commercial refrigerators as its principal products.

Among the unusual features of the machine is a new type of compressor, in which the cylinder both oscillates and reciprocates. It is valveless and is said to be capable of handling copper filings, steel and other matter without affecting the machine or its efficiency.

Another feature is a ported rotating disc, part of the compressor, which feeds the liquid refrigerant to the cooling unit. This rotating disc takes the place of the usual needle expansion valve. It is said to handle dirt and filings without trouble or damage and to be self-grinding and oiling type.

The Haven Manufacturing Co. is a closed corporation, with Charles D. Haven as president and Ernest F. Vilter, secretary and treasurer. Mr. Haven has had wide experience, including the manufacture and sale of pure compressed corkboard, as well as refrigerator construction. Mr. Vilter is an engineer of considerable experience in the design of refrigerating machinery and production management. It is understood that the bulk of the company's distribution will be through agents and dealers.

EASTERN SALES CO. ANNOUNCES NEW ESCO MILK COOLING CABINET

The Eastern Sales Co., refrigeration division, West Chester, Pa., announces its new "Esco" electric milk cooling cabinet. The cabinet is designed for cooling milk on the dairy farm and ranges in size from a capacity of four to fourteen cans. The cabinet comes complete with coils, thermostat and expansion valve ready to be attached to a compressor which may be any one of a number of the standard makes now on the market.

Quick and efficient cooling of milk on the dairy farm has always been somewhat of a problem, and it is with this thought in mind that the Eastern Sales Co. has brought out this new unit which they anticipate will be well received by dairy men.

REEFER ELECTRICALLY REFRIGERATED TRUCK TO BE MADE BY BAIRD CO.

The William F. Baird Co., Winchester, Mass., has announced the Reefer electrically refrigerated automobile truck for the transportation of perishable products. According to the report, an electric generator is connected to the power plant of the truck and this in turn operates a motor which drives the compressor. The refrigerant used is methyl chloride. The refrigeration equipment weighs 760 pounds.

In order to provide for periods when the truck may be parked at night during long trips, the compressor motor may be connected with local electric service. The body of the truck is cork insulated.

The equipment is designed especially for produce merchants, butter and egg shippers, fruit and vegetable growers, who are showing an increasing interest in cold storage transportation by truck.

New Interests Take Over Refrigo Corporation

The Refrigo Corp., with headquarters at Milwaukee, Wis., has been incorporated by Peter G. Dennison, Daniel A. Stevens, and Richard J. Patterson, to take over the old company of the same name. It is understood that the consideration is sufficient to

Copeland Planning National Call Week

The week of March 25 has been set aside by the Copeland Products, Inc., of Detroit, as National Call Week. During this time every Copeland distributor and dealer is called on to send his salesmen out for a thorough house-to-house canvass for new prospects.

Weissenburger Addresses Keokuk Lions' Club

The Keokuk Lions Club heard an interesting talk by Lamont Weissenburger of the Keokuk Refrigerating Co., at its regular meeting on February 14. Mr. Weissenburger told of the increased production and sale of machines manufactured in his company's plant in Keokuk and indicated that prospects were unusually good for the coming year.

"Enjoy your paper very much and think it is a wonderful help and aid to anyone interested in refrigeration."—F. H. Gregory, McAllen, Texas.

GERMAN FIRMS SELLING AMERICAN EQUIPMENT

United States Department of Commerce
Bureau of Foreign & Domestic Commerce
21 Friedrich Eberstrasse, Berlin
Office of Commercial Attache
American Embassy, Berlin, Germany.
February 16, 1928

Electric Refrigeration News,
554 Maccabees Bldg.,
Detroit, Mich.

Gentlemen:

Some time ago we received a copy of Electric Refrigeration News and showed this to a number of prospects in Germany in this line. The following is a list of firms selling American refrigerating equipment in Germany, which I think may be of interest to you:

1. Erstate Asperger Eisschrankfabrik Carl Fink, Asperg, Wuerttemberg.
2. Frigidaire G.m.b.h., Berlibm Luetzowplatz.
3. Hugo Henseler, Berlin, Friedrichstrasse.
4. Bamberger, Leroi, Frankfurt am Main.
5. Ignatz Gellert & Co., Wien III, Kegelgasse 27.

The first of these firms has now written to me asking me to order an annual subscription for him, which I am herewith doing. As regards payment I suggest that you send Mr. Fink your invoice direct.

Very truly yours,
Fayette W. Allport,
American Commercial Attache.

Restaurant Equipment Men Meet at Cleveland

Branch managers of the Bishop & Babcock Sales Co., Cleveland, Ohio, manufacturers of restaurant and cafeteria equipment, including Red Cross soda fountains, convened recently at the main offices in Cleveland to discuss sales policies for the coming year.

The names and positions of the gentlemen in the photograph above, reading from left to right, are:

W. S. Macomber, Cleveland; L. S. Belitzer, Denver branch manager; W. C. Linehan, Cleveland; O. R. Root, Cleveland; R. B. Lancaster, Atlanta; C. R. Ragsdale, St. Louis branch manager; E. R. Wilbrink, Atlanta branch manager; H. B. Hoene, Cleveland; K. R. Millhoff, Cleveland; H. Sayenga, Pittsburgh branch manager; F. W. Munson, Chicago branch manager; J. S. Robitaille, Kansas City branch manager; W. P. Anderson, Dallas branch manager; E. R. Cerny, Cleveland; H. D. Dietrich, Cincinnati branch manager; J. W. Fuller, Cleveland branch manager; E. J. Levy, assistant sales manager; A. G. Bean, president and general manager; C. H. Whitenack, New York branch manager; J. L. Fuller, general sales manager; F. H. Teagle, vice-president and treasurer; P. M. Brunst, Cleveland; W. A. Haak, Cleveland, and F. N. Mizer, plants manager, Cleveland.

NEW YORK UNIVERSITY DROPS COURSE IN REFRIGERATION

In the February 15 issue of ELECTRIC REFRIGERATION NEWS an item appeared in which it was stated that the course in domestic refrigeration which was offered during the fall and winter months by the New York University would be repeated in a second term opening during the latter part of February.

In checking up the final registration for the second term, it was found that the number of students interested was inadequate to warrant the repetition of the course so that it will not be offered again until next fall. At that time it is planned to make an exhaustive survey of the field and to present a completely organized course of study covering a two-year period.

Pharmacists Visit Frigidaire Plant

A lecture, "Refrigeration Problems and How to Overcome Them," by E. G. Byrne, of the Frigidaire Corp., and a trip through the Frigidaire plant at Moraine City were included as a part of the program of the Ohio State Pharmaceutical Association, in convention at the Miami Hotel, Dayton, Ohio, during the week of March 5.

SAVAGE
MERCURY
REFRIGERATION

MEANS LOWER CABINET COSTS
BECAUSE OF THESE FEATURES

Less need of service

No internal moving parts . . . No oil mixed with the refrigerant
No pistons . . . No valves . . . No float or expansion valve!

Lower depreciation

No internal wear in compressor . . . Solid cork board in cabinet sealed against moisture.

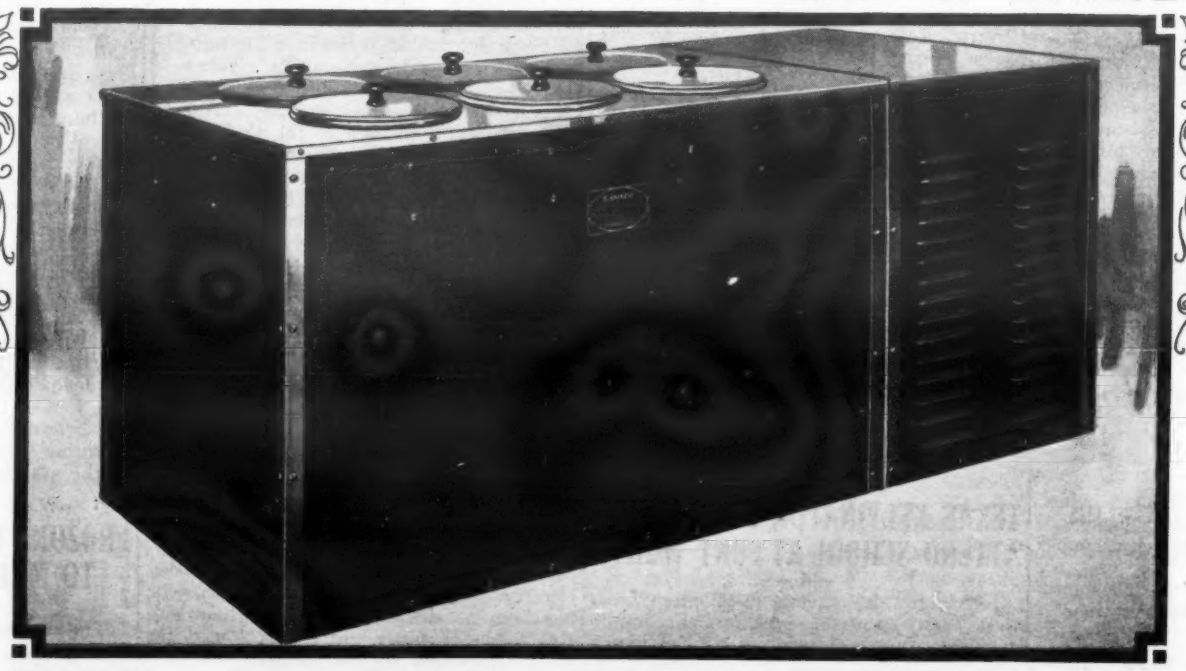
Quiet efficient operation

Rotary motion at slow speed produces quiet efficiency maintained for many years of continuous operation.

The interesting, convincing story of Savage Mecury Refrigeration is available to you. Write (on your letterhead) today

SAVAGE MERCURY REFRIGERATION FOR ICE CREAM CABINETS

COMPARE YOUR SERVICE COSTS WITH THOSE OF *SAVAGE* USERS



The original—Savage Mercury Compressor

Licensed under J. G. De Remer Patents

ONE OF THE PRODUCTS OF
SAVAGE ARMS CORPORATION UTICA NEW YORK

Opinions of Central Station Executives Regarding the N. E. L. A. Campaign

Answers to Telegrams Requesting Views on the Value of the Electric Refrigerator as a Load Builder

ACTING upon a suggestion offered by E. A. Edkins, manager of the Electric Shops of the Commonwealth Edison Co., Chicago, following the discussion of the N. E. L. A. Committee's "Selling the Idea" campaign at the meeting held in Chicago last week, ELECTRIC REFRIGERATION NEWS directed telegrams to a number of well-known central station executives in various parts of the country for the purpose of securing views on the financial aspects of the proposed program.

Mr. Edkins pointed out that in order to secure the necessary appropriations for carrying on the activity outlined by the Committee, merchandising managers must necessarily translate their enthusiasm for the plan into a budget which will relate the proposed expenditure to the probable results. In other words, he suggested that an effort be made to evaluate the new business which may be expected to result from the advertising so that financial executives would be in a position to judge the desirability of the plan in comparison with the other proposals.

After consulting with Chairman Richardson and other members of the Committee, three questions were asked in the telegrams as follows:

"Assuming average annual revenue of a domestic electric refrigerator at thirty dollars do you agree that first year's revenue represents reasonable amount to invest to secure added load? If not, what do you consider fair amount per unit?

"Do you agree with Chairman Richardson of N. E. L. A. Refrigeration Committee that ten per cent of domestic customers are immediate prospects for electric refrigeration? If not, how many do you estimate in your territory?

"Do you contemplate using direct advertising plan endorsed by committee as outlined in our February first issue? Will appreciate wire answer for publication next issue."

Referring to the above mentioned figure of $30.00, this amount has been used frequently as representing the average annual revenue from a household machine. Some tests show a higher figure running up to $40.00 or more. The average amount depends, of course, upon the size of the units. In the earlier stages of electric refrigeration development, the first installations were in the better class of homes using fairly large-size cabinets. During the past year the tendency has been toward the smaller size of unit and it is, therefore, probable that $30.00 represents a fair amount to use as a basis for estimating increased revenue.

It should be noted that this amount, or slightly less, represents the average domestic bill for lighting and miscellaneous appliances. Central station executives are aware that the electric refrigerator offers the possibility of doubling the average bill for household current. Owing to the fact that most of the homes in the country, within reach of central station lines, have now been wired, it is realized that effective methods must be found to increase the use of current by present customers if the public utilities are to continue to grow at the same rate as in past years.

$30 a Conservative Investment Per Unit—10 Per Cent Should Be Circularized

Telegram—"Believe thirty dollars very conservative figure as amount to invest per refrigerator to secure added load (stop). Would not say ten per cent of domestic customers are immediate prospects for electric refrigerators if that means that many sales this year (stop). Do believe that ten per cent is conservative as to number that should be circularized at once (stop). Plan to use part of committee's advertising plan at once."

E. G. Nichols, division manager, Iowa Railway & Light Corp., Cedar Rapids, Iowa.
(Middle West Division Representative, Refrigeration Committee, N. E. L. A.)

Refrigeration Load Warrants Investment Equal to Twice Annual Revenue. Intend to Use Direct Advertising Plan

Telegram—"Retel even date think investment warranted by refrigeration load should be at least twice annual revenue of said refrigeration load (stop). We estimate five per cent of domestic customers are immediate prospects for electric refrigerators and this percentage will increase rapidly as public become more familiarized with advantages of electric refrigeration (stop). We intend using direct advertising plan endorsed by committee but will make changes therein to fit local conditions."

Charles A. Collier, vice-president, Georgia Power Co., Atlanta, Ga.
(Refrigeration Committee, N. E. L. A.)

Considers $30 a Maximum Figure—Ten Per Cent Are Prospects, but Getting Five Per Cent This Year Will be a Good Job

Telegram—"Replying night letter we feel that thirty dollars is maximum to consider as investment for electric refrigeration during first year (stop). We agree with Chairman Richardson that ten per cent of customers are prospects but not immediate (stop). We would consider that getting five per cent of our customers this year would be a good job. We hope to use the committee plan but do not know to what extent until it is submitted to our local properties for their opinion."

J. W. Deveraux, H. M. Byllesby & Co., Chicago, Ill.
(*Continued on Page 4*)

N.E.L.A. Direct Advertising Plan Now Ready to Use

(*Continued from Page 1, Column 5*)

literature designed locally, if any company prefers to do so. At least one other advertising concern is already prepared to furnish the complete service.

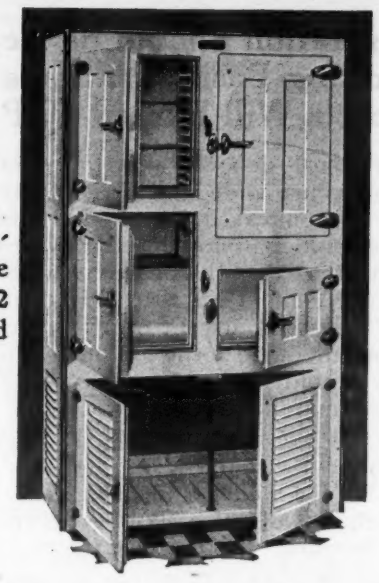
The advertising material presented in the portfolio is strictly educational in character and no reference is made to any particular brand of electric refrigeration equipment. Experience has shown that such copy inspires confidence because of its neutral and authoritative tone. It is intended, however, that the mailings should be supplemented by the literature furnished by manufacturers and that sales effort in each community should be organized to follow up and capitalize upon the interest created by the personalized letters and folders.

Financing of Campaign Discussed

Questions pertaining to the cost of the program and methods of securing the necessary appropriation were discussed by representatives of several large public utility organizations. Consideration was given to the problems of securing suitable mailing lists. It was pointed out that this repre-

(*Continued on Page 4, Column 3*)

BOHN SYPHON REFRIGERATORS



Beautiful, Distinctive. Can be had in 7, 9 and 12 cubic foot net food storage capacity.

White Porcelain Enamel inside and outside. The machine compartment is ideal for storage space where remote installation is made.

For Electric Refrigeration

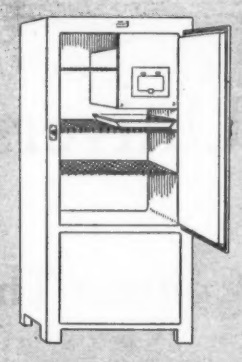
Write for Full Particulars

Bohn Refrigerator Company

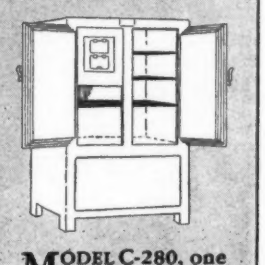
SAINT PAUL, MINNESOTA

These Models are on Display at our own Stores in

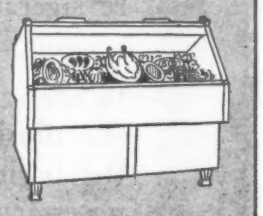
NEW YORK 5 E. 46th St. | CHICAGO 227 No. Michigan Blvd. | BOSTON 707-709 Boylston St.



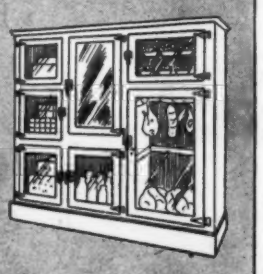
MODEL C-155, new low price model. Ample capacity for the modest home. Well adapted to apartment house use.



MODEL C-280, one of five standard self-contained models. Fully rounded corners without stripping or trim. Interior of full porcelain with sanitary rounded corners. Finished in Welsbach white or gray Nitro-Lacquer.



WELSBACH systems are available for display and freezer cases of all types.



WELSBACH is ideal for restaurants, groceries, delicatessen stores, florists, butcher shops, water cooling systems, etc.

Mrs. Smith speaks

"Yes, I'm sure what you say is true, but Mr. Smith and I have decided to buy a Welsbach Low Pressure Refrigerator. You see, some of the very good points you bring up aren't as important to us as they are to you.

"Mr. Smith says it stands to reason that if there isn't much strain on machinery, it isn't so apt to give any trouble, and the Welsbach works at only 20 pounds pressure. And it operates so—so leisurely and effectively—at only 280 revolutions per minute, it naturally won't vibrate or become noisy after a few months' use. And then I like the simple, clean-lined beauty of the Welsbach cabinets. They are so easy to care for.

"But as much as anything I am delighted with the idea of its being made by Welsbach. I've known and used Welsbach products since I was a little girl and know that what they build is reliable . . . "

What the thousands of Mrs. Smiths say is vitally important to all Distributor-Dealers and Central Stations. The Welsbach advantages are not merely "talking points". They are fundamental and exclusive advantages of Welsbach Low Pressure Refrigeration. It's a wise business man who distinguishes the difference and puts his money on the side of fundamentals for the long pull in profits.

The Welsbach line comprises all essential models for domestic refrigeration; also systems for practically all commercial work. Distributor-Dealers and Central Stations are invited to write for particulars about the Welsbach profit-making franchise. Address Refrigeration Division, Welsbach Company, 307 Ellis Street, Gloucester City, New Jersey.

Welsbach covers the field: domestic, commercial, industrial

Welsbach

LOW PRESSURE REFRIGERATION

Additional Telegrams on Value of Electric Refrigeration Load

(*Continued from Page 3*)

Electric Refrigeration Should be Kept on Profitable Merchandising Basis. In Some Territories Prospects Will Exceed 40 Per Cent

Telegram—"Absence delayed answer. Not necessary to invest first year's revenue secure added load electric refrigeration. Can and should be kept on economical and profitable merchandise basis. Five per cent gross sales sufficient for dealer advertising coordinated with advertising of manufacturer. In some territories immediate prospects will exceed forty per cent. We are selling units to customers very modest income. Think ten per cent probably fair average entire country. Probably adopt modified form committee plan or plan devised by advertising agency employed by manufacturer in order to coordinate with and capitalize manufacturers advertising. Publicity given by manufacturers advertising this year will have great educational effect giving refrigeration sales great boost."

F. D. Pembleton, assistant to vice-president, in charge of sales, Public Service Gas & Electric Co., Newark, N. J. (Refrigeration Committee, N. E. L. A.)

Agrees with Figures—Will Use Direct Advertising to Present Electric Range Users and All Farm Customers, Totalling 11 Per Cent

Telegram—"Retel agree very closely your figures (stop). We intend using direct by mail plan for present electric range users plus professional and business men who do not have ranges and all farm customers (stop). This figures about eleven per cent our residential meters (stop). Intend using Richardson's plan with some revisions.

Stanley Taber, Iowa-Nebraska Light & Power Co., Lincoln, Nebr.

Considers One Year's Revenue Too Much for Central Station to Spend—Believes Less than Ten Per Cent Are Immediate Prospects

Telegram—"Do not recall any class of business where electric company has spent as high as one year's revenue to obtain same (stop). During period wiring old houses customary to spend as high as ten dollars per year per new customer or less than half first year's revenue which is about highest cost for any class of new business I can think of but this was high rate business which offered possibilities of continued increase from year to year and was quite different than selling an article of merchandise on which there is a supposed merchandising profit and therefore capable of standing on its own legs and requiring no outside bonuses (stop). Cannot see that electric companies should pay any bonus for the sale of a legitimate article of merchandise which should be capable of being merchandised on its merits and from its own margin of profit but there is of course a limit to the sales of any article which can be made governed by the expense in sales promotion the margin of profit will permit and it is only for boosting the sales beyond this limit that central station companies might be expected to assist and it would seem that any expenditures on their part should be judged from the standpoint of producing additional sales rather than paying bonus on all sales (stop). If by immediate prospects is meant sales for the coming year would say that ten per cent is a great deal higher than anything yet accomplished and probably three or four times as high as was the average last year or any preceding year and while a good mark to shoot at is safe to say that no manufacturers will budget their production and expenditures on these figures."

H. E. Young, Northern States Power Co., Minneapolis, Minn. (North Central Division Representative, Refrigeration Committee, N. E. L. A.)

Note.—Regarding to Mr. Young's reference to a "bonus," our question was not based upon the idea of a payment by the central station to anyone for the sale of an electric refrigerator. As explained in the introduction, our purpose was to arrive at an evaluation of the electric refrigerator as a current consumer. This figure, together with a fairly accurate estimate as to the number of units which may be sold in a community, provides a basis for estimating the amount which *a central station may spend profitably for educational advertising and other sales activities.* As Mr. Young says, such expenditures should be judged from the standpoint of producing *additional* sales. The Committee's plans contain no suggestion that the central station pay a bonus for sales already made.—Editor.

Ten Per Cent Domestic Customers Early, if Not Immediate, Prospects—Seriously Considering Direct Advertising Plan

Telegram—"Your letter seventh (stop). Even though domestic refrigerator considered lamp socket device it requires unusual type servicing and central station should not be required to sacrifice first year's revenue as investment for added load (stop). Consider ten per cent domestic customers early if not immediate prospects (stop). Seriously considering Richardson's direct advertising plan."

A. B. Collins, Alabama Power Co., Birmingham, Ala.

Nine Per Cent of Residential Customers in Baltimore Have Machines—Fifteen Per Cent Are Prospects

Telegram—"Your wire seventh depends on what is meant by investment. If it means loss would consider it unreasonable. Consider at least 15 per cent as we already have 9 per cent of residential customers. Direct advertising advisable."

R. H. Tillman, Consolidated Gas & Electric Co., Baltimore, Md. (Refrigeration Committee, N. E. L. A.

(*Continued on Page 5*)

N.E.L.A. Direct Advertising Plan Now Ready to Use

(*Continued from Page 3, Column 3*)

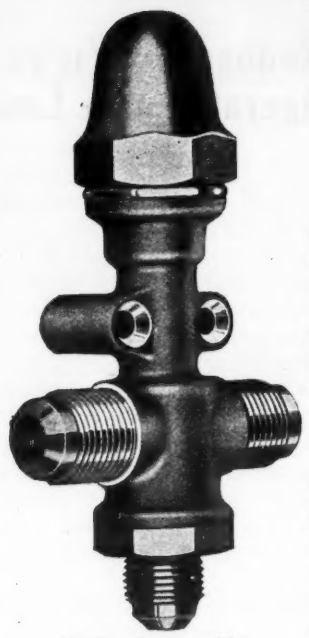
sents no great difficulty in the smaller towns, where merchandising managers and salesmen are familiar with the names. In the large cities, considerable work will be involved in the process of selecting prospects from the lists of central station customers and in eliminating the names of those already equipped. It was suggested that the local prospect lists which have been compiled and checked by the sales organizations of the different manufacturing companies and distributors may provide the answer to this problem.

In the original presentation of the plan by Chairman Richardson, at the meeting of the committee in Chicago January 18, it was recommended that approximately 10 per cent of the residential lighting customers be selected for the 1928 campaign. Mr. Richardson expressed the opinion, based upon experience in his company, that at least 10 per cent are immediate prospects, that is, prospects who may be sold within a reasonable length of time. Since the material for a 12-months campaign will cost something less than $1 per name, a basis is provided for estimating the approximate cost of the program for any community. If the plan were put into operation throughout the country, the total expenditure for this educational work would reach a total between one and two million dollars.

Owing to the fact that the electric refrigerator represents the most attractive household appliance from the central station viewpoint and that it offers the greatest possibilities for substantially increasing the revenue from domestic customers without requiring a proportionate increase in generating and transmission equipment, the committee believes that the central station companies will make every possible effort to use the campaign to the end that a total of a half million more electric refrigerators may be connected to the central station lines during the present year.

Mueller

FORGED Refrigerator Valves and Fittings



Mueller 3-way refrigerator shut off valve
¼"....A11024
⅜"....A11025
½"....A11023

Mueller Refrigerator Fittings are specially designed for electric refrigeration work!

They are forged—being made under tremendous pressure, seepage is impossible. They are strong, uniform, nonporous and have sharp even threads.

We are pioneers in the manufacture of Mechanical Refrigerator parts and —experience does count.

The superiority of Mueller Brass forgings over sand castings for refrigerator parts is too well known to require explanation.

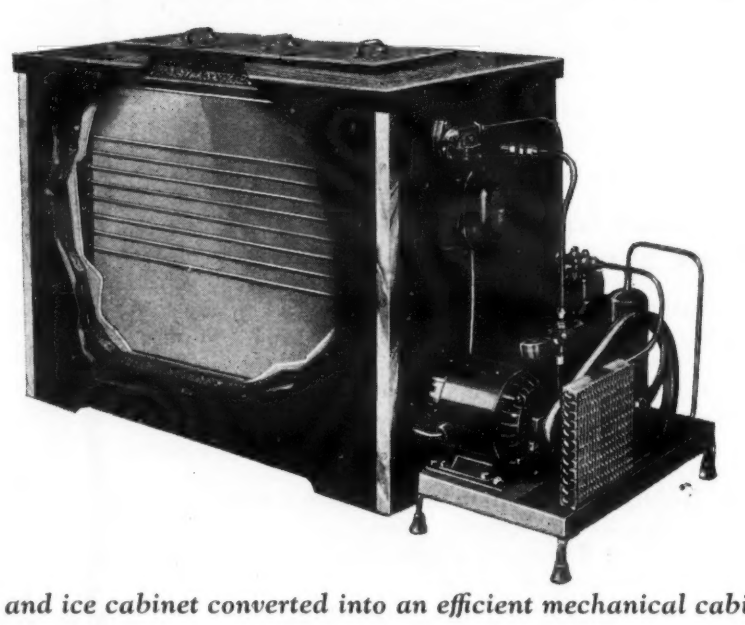
There is no waiting for Mueller Refrigerator Fittings, they are always in stock, ready for prompt shipment.

Mueller Refrigerator Valves or Fittings can be made to suit your special requirements.

Send us samples or blue prints for quotation.

Mueller Brass Co.
PORT HURON, MICH.
THREE GENERATIONS OF BRASSMAKING

Universal Cooler Conversion Plan
Saves You Money
Convert Those Ice and Salt Cabinets to Mechanical



Salt and ice cabinet converted into an efficient mechanical cabinet

THE Universal Cooler conversion plan enables the ice cream manufacturer to have all dealer stops mechanically refrigerated at a minimum cost.

The Universal Cooler conversion units can be hooked up to the salt and ice cabinet by inserting the coil as shown in the illustration above. No changes to the cabinet, except the boring of two holes in the side or end for tubing, are necessary. The unit may be attached either beside the cabinet or in a more remote location.

Ask about our "Insurance Plan." We will gladly furnish price lists. Names of prominent concerns who are satisfied users will be supplied on request

Write For Catalogue

Universal Cooler Corporation
Ice Cream Cabinets and Electrical Refrigerating Units
18th at Howard
DETROIT, MICHIGAN
Windsor, Ontario, Canada

Central Station Opinion on Refrigeration Merchandising

(*Continued from Page 4*)

First Year's Revenue a Reasonable Amount to Secure Added Load—4.65 Per Cent of Customers Now Own Refrigerators

Telegram—"With reference to telegram to P. H. Powers Ridgway we believe first year's revenue represents reasonable amount to secure added load (stop). We believe that there is ten per cent of domestic consumers as immediate prospects for electric refrigerators (stop). To date our sales show four point six five per cent of domestic consumers ownership of refrigerators (stop). Estimate sales in nineteen twenty-eight represent four point six per cent additional. We contemplate using direct advertising plan designed by our own advertising agency consisting of seven broadsides to all domestic consumers during April, May and June to be backed by newspaper advertising."

L. L. Bailey, West Penn Power Co., Keystone Division, Ridgway, Pa.

Suggests $30.00 Less Allowance for Overhead and Service—Would Spend $10.00 for Personal Selling and $5.00 for Advertising

Telegram—"Retel entire revenue each refrigerator excessive amount spent securing similar added business (stop). Suggest thirty dollars minus overhead and upkeep of appliance would be proper amount present status refrigeration business (stop). Fifteen dollars per machine would amount to approximately ten dollars in personal effort five dollars advertising (stop). All customers potential prospects mechanical refrigeration (stop). Not over five per cent real prospects at present time."

J. M. Eakin, Public Service Co. of Colorado, Denver, Colo. (Rocky Mountain Division Representative, Refrigeration Committee, N. E. L. A.)

Figures Less than Five Per Cent Immediate Prospects —Plans for 1928 Campaign Already Formulated

Telegram—"Would be very happy to have ten per cent of our domestic electric customers immediate prospects for electric refrigeration (stop). We do not believe that five per cent of our domestic customers are immediate prospects (stop). Will not use sales plan prepared by refrigeration committee of N. E. L. A. in our operation (stop). Our plans for nineteen twenty-eight were formulated in the fall of nineteen twenty-seven to cover refrigeration activity for this year."

E. F. Schmidt, The Toledo-Edison Co., Toledo, Ohio, (East Central Division Representative, Refrigeration Committee, N. E. L. A.)

Justified in Spending Considerable Money in Educational Work—Present Saturation More than 8 Per Cent of Domestic Customers

Letter—"In answer to your telegram of March 8th our company believes in actively promoting the sale of domestic electric refrigeration. We believe we are justified in spending a considerable amount of money in educational sales development work. This statement is borne out by the fact that we have a saturation on electric refrigeration of more than 8% of the domestic customers. We consider that 20% of our domestic customers are immediate prospects for refrigeration if offered them on a sound partial payment basis. Our plans are to use several pieces of direct mail advertising in addition to newspaper advertising and direct house to house selling. The sales plan and quota for this year calls for sales in excess of 3% of our domestic customers. This is expected to be accomplished as the result of cooperating with one or more electrical dealers in each community by carrying customers time payment paper on sales made by the dealers and sharing their advertising expense."

C. L. Dunn, general new business manager, The Ohio Public Service Co., Cleveland, Ohio.

Ten Per Cent Immediate Prospects Amounts to $1,500,000 for Entire Country—Believes Central Stations Should Merchandise at a Profit

Letter—"I have just returned from the Commercial Section group committee meetings held in Chicago, and find your telegram of the seventh making certain inquiries regarding domestic electric refrigeration business.

"I do not believe that any figure can be set as to the amount that will be allowed for refrigeration selling expense. However, I do believe it is unnecessary for a light and power company to sell units at a loss, regardless of earnings or profit on the sale of electric service for domestic refrigeration. I have always felt that the merchandising business of a light and power company should be sold at a profit, if possible.

"You state that Chairman Richardson of the Refrigeration Committee estimates that ten per cent of our domestic customers are prospects for electric refrigeration. I should think that would be true. If it is, it means that we have in this country about 1,500,000 prospects. I have not yet talked with my associates about the use of the advertising plan endorsed by the Refrigeration Committee, and cannot very well do so until a copy of the Plan Book is received."

J. E. Davidson, Nebraska Power Co., Omaha, Nebr. (Chairman, Commercial National Section, N. E. L. A.)

SOUTH CAROLINA G. E. DISTRIBUTOR HOLDS DEALER MEETING

"To the south belongs the credit for the first great advance in modern refrigeration," said W. D. Trewick, of the engineering staff of the General Electric Co., of Schenectady, N. Y., in the course of a talk given at the Jefferson Hotel, Columbia, S. C., during a meeting of all General Electric refrigerator dealers in South Carolina held under the auspices of Huntington & Guerry, Inc., Greenville, S. C., on February 27.

"Natural ice," said Mr. Trewick, "was first used in this country about the year 1800, but the Confederate War shut off the supply from the south in 1861 and thus mechanical ice came into existence, the first ice machine being used in New Orleans in 1864."

The informal morning meeting was devoted to sales talks. During the afternoon, R. S. Huntington, president of Huntington & Guerry, Inc., was introduced by L. J. Spiers, chairman of the meeting, and gave the opening remarks. W. M. Timmerman, L. W. Driscoll and A. C. Mayer, all of the General Electric Co., Cleveland offices, spoke on the following subjects: "The G. E. Icing Units," "Store Set-Ups," and "Dealer Organization." A banquet was served at the Jefferson Hotel at 6:30, after which talks by a number of the Cleveland organization were heard as well as a number of short addresses by men prominent in the community. These included talks by E. W. Robertson, National Loan & Exchange Bank; T. C. Williams, vice-president of the Lexington Power Co.; F. D. Campbell, general manager of the Broad River Power Co.; W. M. Perry, president of the Perry-Mann Electric Co.; William Lykes, Jr., Chamber of Commerce; and J. H. McLaughlin, Columbia State.

A Lacquer Finish That Has Stood the Test

M&W Co. 1876

M & W White Refrigerator Lacquer Enamel has been adopted for the following

Reasons

No. 1—**BEAUTY OF FINISH.** It resembles Porcelain in color and lustre.
No. 2—**APPLICATION DIFFICULTIES** are minimized.
No. 3—**TOUGHNESS and DURABILITY.**
No. 4—**EASE** of cleaning after assembly.
No. 5—Does not **CHIP** where drilling is necessary.
No. 6—Has been built upon many years of **EXPERIENCE** and Research in the Manufacture of Lacquers and Enamels for finishing Metal and Wood.
No. 7—Has been proven in actual large volume **PRODUCTION** and has withstood the most severe and critical tests.

Spray two coats over M & W Lacquer Primer or M & W Oil Base Primer to produce a LASTING, BEAUTIFUL FINISH.

Available in any required color.

MAAS & WALDSTEIN CO.
METAL WOOD
LACQUERS *and* ENAMELS

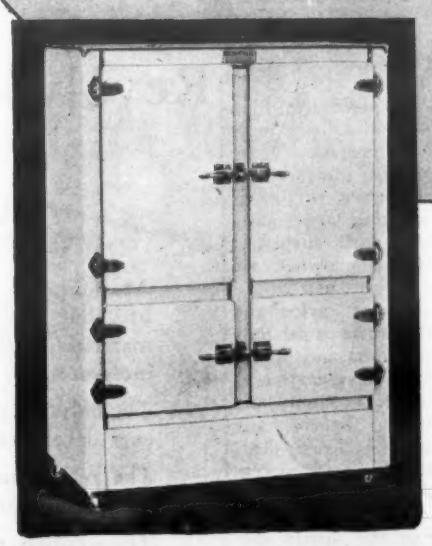
45 JOHN ST., NEW YORK
WORKS—NEWARK, N. J.

CHICAGO OFFICE AND WAREHOUSE
1115 Washington Blvd. West

LOS ANGELES OFFICE AND WAREHOUSE
1212 Venice Blvd., Los Angeles, Cal.

Refrigerator Manufacturers!

The best known companies in the Industry are users of Monel Metal trim. The race for leadership is won by manufacturers who build the highest quality products—who build with Monel Metal



Leading manufacturers of refrigerators are using Monel Metal trim because—

1. It is permanently bright and attractive.
2. It is easy to keep clean because of its rust-immunity and corrosion-resistance.
3. Its steel-like strength makes it hard to dent or scratch.
4. Its surface never shows signs of wear—it has no coating to wear off.
5. Its general good looks and ornamental value enhance appearance and salability.
6. It is being advertised to American housewives through leading magazines.

Monel Metal trimmed refrigerator manufactured by the BELDING-HALL ELECTRICE CORP. of Belding, Mich.

SEND FOR "LIST B" OF MONEL METAL & NICKEL LITERATURE

Monel Metal is a technically controlled Nickel-Copper alloy of high Nickel content. It is mined, smelted, refined, rolled and marketed solely by The International Nickel Company. The name "Monel Metal" is a registered trade mark.

MONEL METAL

THE INTERNATIONAL NICKEL COMPANY (INC.) — MONEL METAL — 67 WALL STREET, NEW YORK, N. Y.

Selling the "Idea" of Electric Refrigeration

Foreword to the Year-Round Merchandising Activity Sponsored by the N. E. L. A. Committee

Following is the "foreword" to the new portfolio outlining the "Selling the Idea" campaign for central stations sponsored by the Electric Refrigeration Committee of the National Electric Light Association. Advance copies of the portfolio were shown at the meeting of the Committee in Chicago, March 7.

"This selling activity is promulgated as a valuable aid in the more intensive and more effective marketing of electric refrigeration—the main objective of the Refrigeration Committee, Commercial National Section, National Electric Light Association.

"The activity proposes a co-operative market development effort, bringing together the local electric refrigeration interests—the electric light and power companies, electrical dealers and contractor dealers, department, hardware, furniture, house furnishing, dry goods and general stores, and other distribution channels capable of acceptably serving the public—to sell the idea of electric refrigeration.

"The mechanics of the plan as shown in this plan book include a number of letters and printed mailing pieces, some newspaper advertising and publicity stories, which can be used by an electric light and power company, or by a community group, headed by a power company or some other type of dealer.

"By way of practical illustration, the mailing pieces and advertisements being used now by an electric light and power company that has made marked progress in the building of an electric refrigeration load are shown. It will be noted that the letters and mailing pieces are personalized in each case with the name of the individual electric customer. It is to be specially pointed out that in this, or any other direct mail campaign, a list of customers should be very carefully selected and prepared.

"Further, it is to be stated that this or any other advertising activity cannot be expected to produce sales unless the utility and the other refrigeration dealers carefully plan ahead to follow through with a well organized personal solicitation. Two pages of suggestions for bringing together the local interests and for organizing this follow-up are included toward the end of this portfolio.

"Under well organized procedure, the pressure of such a sales plan should be felt by all the consumers whose residences are equipped for refrigerator installation. The sales volume of the retailer of electric refrigerators is sure to be favorably affected regardless of the extent of his participation in the effort. However, obviously, a retailer's increase in business through this activity will mount proportionately to the degree of his co-operation, and that fact should be emphasized to all classes of dealers in every community.

Flexible-Simple-Practical

YEAR-ROUND Planned Advertising Program

The Chart shows that the campaign may be started any month in the year.

"This co-operative plan is not a substitute for the plans offered by manufacturers. It paves the way by selling the idea of refrigeration without any reference to particular makes or types. For this reason, the committee believes that a considerable degree of effort in this activity will be free from the appearance of selling a commodity, and therefore should not meet with the sales resistance naturally raised against selling effort dealing with specific makes of equipment.

"This plan affords a practical demonstration of the principle of intra-industry co-operation. Here is a group of allied interests bringing to the group more of the consumers' dollars, with the division of those dollars among the components of the group, depending upon the sales initiative of the individual units.

"The committee desires to express its appreciation to the electric refrigeration manufacturers whose co-operation has made possible the publication and distribution of this portfolio, by making available the necessary funds through The Society for Electrical Development.

"For further information as to the plan or material, communicate with G. B. Richardson, chairman, Refrigeration Committee, Commercial National Section, N. E. L. A., c/o Texas Power & Light Company, Dallas, Texas."

Getting the Local Interests Behind the Selling Plan

A Summary of the 1928 Educational Program

The Central Station Should Lead

"Because of its unique position in a community, it is natural to look to the central station to give leadership. The central station may choose to operate the plan either under the auspices of a committee of the local industry or under its own name with the sympathetic support of the other interests.

"In some cities existing agencies suited to the purpose may be utilized. Thus the electrical league because of its functional character and experience in market development offers exceptional facilities for this work. Should there be no electric refrigeration section within the league, such a section should be formed including in its membership all interested firms both within and without the industry. In some cities there already exists a local refrigeration trade association, but no league, through which it should be practical to handle this activity.

"This plan is entirely applicable by a company operating in widely scattered territory with both large and small communities, and although the number of retail outlets may be comparatively small, it is most desirable to enlist their support as participants in the activity.

Steps in Organizing the Local Group

"The responsibility for taking the initiative in organizing the local industry will rest in most cases with the central station. Where a league exists, the formation of an electric refrigeration section of the league will depend in almost every case on action taken by the central station.

"The first step is to explain the Plan and its benefits to those individuals most likely to be receptive to the project. These men should be impressed with the fact that selling the broad idea of electric refrigeration paves the way for securing larger sales results economically and with dispatch; that the housewife and home owner are not especially interested in mechanical details, food storage capacity, price and terms of an electric refrigerator until they have been thoroughly informed and appreciate the fact that electric refrigeration is necessary to promote health, economy and convenience. Furthermore, before any great number of sales can be closed, dealers must do the educational work necessary to enter into active competition with the hundreds of merchants who are equally anxious to get a share of the family dollar. Any awakening of widespread interest throughout the community in electric refrigeration brings added sales and easier selling to all in the business. As everyone in the industry benefits, all should share in carrying on the educational work.

"Convinced of the Plan's merits and enthused by its possibilities, these individuals should then call a general meeting of all local distributors and dealers to whom the Plan will be presented and its adoption urged. A tentative working program, schedule of operations and estimate of probable cost should be prepared in advance so that a concrete proposition may be submitted. Pledges to underwrite the program should be solicited at this meeting. All funds should be in hand before the activity is started.

"An executive committee of not to exceed five members should be elected and given power to act for the group, being charged with full responsibility for operating the Plan. The central station representative should be on this committee, if not its chairman."

"It will be seen from the foregoing that no elaborate organization is needed. Experience will dictate how complete the set-up should be in large centers or how informal it might be in smaller communities.

"The appointment of working sub-committees is suggested where investigation is to be carried on in obtaining facts necessary for the most effective operation of the Plan. Such sub-committees should make definite recommendations for action to the executive committee and not for presentation at the general meeting.

"The functional parts of the program are briefly reviewed in the following under their respective headings. Every effort should be made to carry out the program in full as outlined. This, however, is a matter which will be decided by local conditions and facilities. Thus, if the central station serves numerous small communities widely spread over a rural district, it may not be practicable to conduct an exhibit of the metropolitan type, but joint exhibits may be shown at county fairs and the like.

Basic Features of the Program

"The essentials of a program are:
"Newspaper Advertising.
"Direct Mail Advertising.
"Window Displays.
"Lectures and Demonstrations.
"Radio Talks.
"Exhibitions and Exhibits.
"Truck Banners.
"Car Cards.
"Bill Boards.
"Salesmen's Meetings.

(*Continued on Page 10, Column 1*)

Do Your Employees Use Electric Refrigeration in Their Own Homes?

"Accusations frequently are made that the electrical industry does not practice what it preaches when it comes to using electrical appliances in the home, particularly the electric range," says *Electrical World* in a recent editorial. "Generally speaking, the shoe fits the foot, and the electrical industry would do well to concentrate on its own internal sales job for a time."

The idea is applicable to electric refrigeration. Manufacturers, distributors and dealers would do well to investigate the extent to which employees, particularly salesmen, have an opportunity to become intimately familiar with electric refrigeration service through daily contacts with equipment in their own home. It is difficult for anyone to talk intelligently and convincingly regarding a product without first having had first-hand experience in using it under normal conditions. "Book learning" is valuable indeed, but it should be supplemented with actual experience.

In the event that home conditions do not permit the possibility of actual ownership, as in the case of the younger and unmarried employees, ample opportunity should be given to experiment with the equipment in the store and demonstration rooms. The great value of employees' knowledge, especially among those connected with the public utilities, is emphasized in the above mentioned editorial which continues as follows:

"Realizing that the electric range is a good entering wedge in electrifying the home and that central station employees using ranges are an aid in breaking down sales resistance, California power companies will put on an 'employee range campaign' during February, making special inducements in the way of price, terms and wiring cost. In four large Pacific Coast power companies 50 per cent of the employees use electric ranges in their homes. This indicates what can be done. In one company 76 per cent of the employees maintaining homes use electric ranges, while in another 72 per cent are range users. It is a notable fact that resistance to the sale of ranges is less in the territories served by these companies than in many other, and it is also true that a high percentage of the domestic customers of these same companies cook electrically.

"Further proof of the value of the use of electric ranges by employees may be summed up in the words of one central station executive who said: 'Great value results from a large proportion of employees using electric ranges in their own homes, as all such employees come into contact with the public and can make a good sales talk on electric cooking from personal experience. The fact that a large percentage of married employees of our company cook electrically must certainly influence the buying public favorably.'"

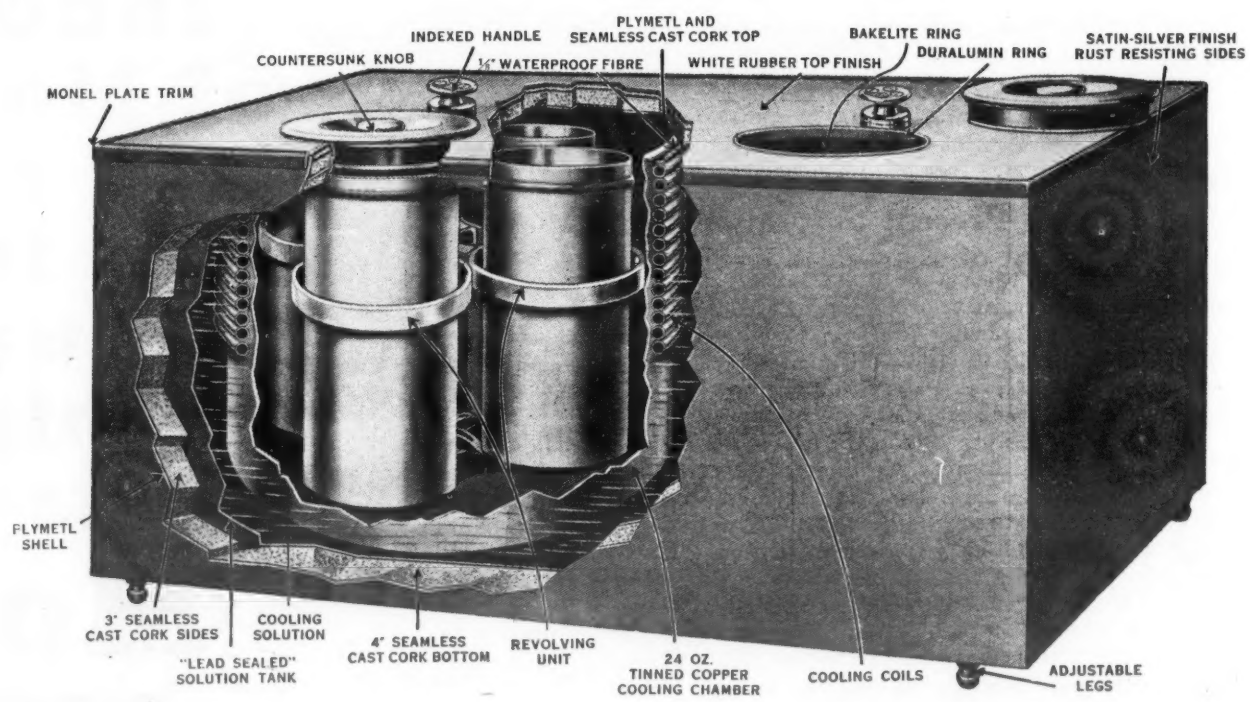
Seeger Boxes on the Saratoga

"In a recent issue of yours the writer noticed that there was an article pertaining to the eleven Kelvinators which have been installed on the U. S. Saratoga Aeroplane Carrier.

"It might be of interest to you to know that these eleven Kelvinators were installed in Seeger No. 358 and No. 408 refrigerators."—H. H. Webber, Seeger Refrigerator Co., St. Paul, Minn.

"One of my numerous complaints," announced the Old Crab the other night, "is the large number of periodicals devoted to the home beautiful, and the scarcity of information on the home comfortable."—*Detroit News.*

Reduce Your Depreciation— Increase Your Sales!



Revolvo-Enduro Ice Cream Cabinets and Fountainettes

and

Standard-Enduro Ice Cream Cabinets

Are long life products. Not one year or five years' life, but built for years and years of service—no materials used that *can* corrode, decompose or disintegrate.

The only rat and vermin proof equipment of its kind ever developed.

The refrigerated parts actually floated in one piece of cast, compressed cork—without seam or crack.

The solution tank has no outside contacts.

With its superior insulation the operating cost is reduced.

JUST THINK!
Your depreciation of from 20% to 25% reduced to practically nothing! Your service costs reduced from their present figure to mere supervision!
At no increase in cost!

ICE CREAM MANUFACTURERS:—
Get the complete story of this solution to your most costly problem!

MACHINE DEALERS:—
Get this excellent outlet for increased sales!

MACHINE MANUFACTURERS:—
Get this new channel for production development!

OUR LITERATURE TELLS THE STORY—GET IT!

ICELESS COOLER CORPORATION

225 N. MICHIGAN AVE. CHICAGO

There Is a Business Opportunity in Every One of These Communities!

AKRON, OHIO
ALBANY, N. Y.
ATLANTA, GA.
BIRMINGHAM, ALA.
BRIDGEPORT, CONN.
BUFFALO
CANTON, OHIO
COLUMBUS
DALLAS
DAYTON
DENVER
DES MOINES
DULUTH
EL PASO
JACKSONVILLE, FLA.
HARTFORD, CONN.
INDIANAPOLIS, IND.
KANSAS CITY, MO.
LOS ANGELES
LOUISVILLE
LOWELL, MASS.
LYNN, MASS.
MEMPHIS
MILWAUKEE
MINNEAPOLIS
NASHVILLE
NEW ORLEANS
NORFOLK
OAKLAND, CAL.
OKLAHOMA CITY
OMAHA
PITTSBURGH
PORTLAND, ORE.
PROVIDENCE, R. I.
READING, PA.
RICHMOND, VA.
SALT LAKE CITY
SAN DIEGO, CAL.
SAN FRANCISCO
SCRANTON
SEATTLE
SPOKANE
SYRACUSE, N. Y.
TACOMA, WASH.
TOLEDO
TULSA
UTICA
WASHINGTON, D. C.
WILMINGTON, DEL.
WORCESTER, MASS.
YOUNGSTOWN, O.

We welcome application from men or companies in a position to cash in on the profits awaiting the installation of a PLYMETL refrigerator assembly plant at each of these points and at others where three or more electric refrigerators are being sold per day.

Compete profitably with national distributors of refrigerator cabinets

The unique principle of the PLYMETL refrigerator permitting knock-down shipment and local assembly makes it possible for a PLYMETL assembly plant in its own territory to undersell the national distributors of cabinets. Volume production of the PLYMETL panels in a central factory is combined with efficient assembly in local plants and the waste incident to packing and shipping complete boxes is eliminated. As a result the PLYMETL assembly plant can sell a better box for the same money and make a very substantial profit.

This opportunity is not limited to the big metropolitan centers. The additional unit cost of assembling PLYMETL refrigerators in a plant handling only three boxes a day over one handling 50 a day is so small that it can be disregarded. An assembly plant in a small city has a big advantage in offering a source of supply right at hand which greatly outweighs any slight handicap due to its small production. The local plant can finish every box to order, in any desired color scheme at practically no additional cost. With the increasing demand for individual color treatment in the home, this gives the PLYMETL box a big sales advantage in addition to its superior construction features mentioned below.

Small investment is ample

The investment required in a PLYMETL assembly plant is small. The cost of equipment varies from $5,000 to $10,000, depending on the size of the proposed output. The total working capital, including this investment, would only be from $15,000 to $30,000. A small amount of floor space and a very small organization can handle the work.

The profit in this business makes it very attractive even in the smaller cities. Wherever an output of three or more boxes can be taken as a basis of figuring, the return will be unusually large for the small capital and effort required.

We have detailed data covering the layout of an assembly plant, the equipment needed, the organization for handling sales and assembly, etc. We will gladly put this information in your hands if you are interested in forming a local company to meet this need for better refrigeration cabinets at a fair price.

The advantages of PLYMETL cabinets make them easily salable

The PLYMETL refrigerator cabinet can be used with any type of electric cooling unit. It represents a standard of insulating efficiency never before equalled in a box of its price.

The use of PLYMETL as a shell makes possible the elimination of corner posts and the complete sealing of the exterior of the box, two features which represent radical improvements in cabinet design. No air can enter the insulating space and cause condensation. No metal trim is needed since there are no joints to hide.

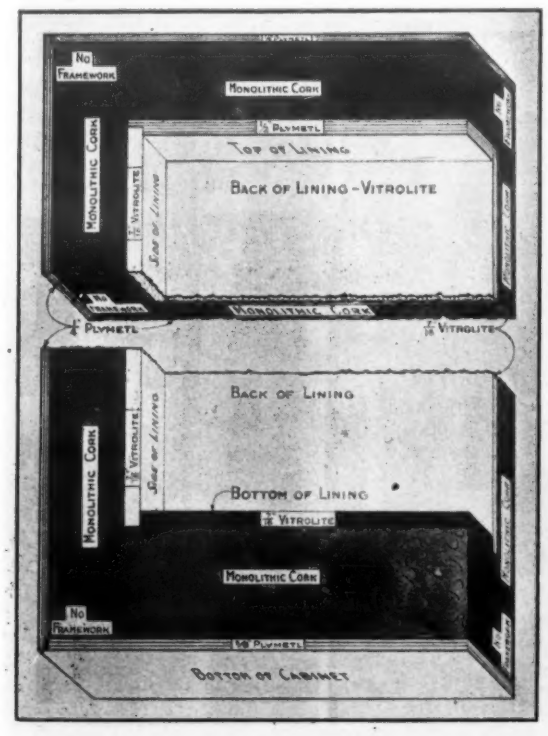
The insulating medium is monolithic cork with no joints or breaks to allow heat to penetrate. This cork is mixed by a special process developed by this company and made available to our assembly plants.

The doors are covered with steel on both faces with the edges turned up, overlapped and soldered, making a hermetically tight seal. The strength and stiffness of the steel faced plywood in these doors eliminates warping, thereby insuring a tight fit not only when the door is new, but throughout the life of the cabinet.

A Vitrolite lining is used in the PLYMETL box—the highest grade of refrigerator lining known. In the past it has been applied only to large, high priced refrigerators.

A box with the superior quality of the PLYMETL refrigerator could be sold at a great advance in price over ordinary refrigerator cabinet construction. But on account of the great savings effected by local assembly, it can compete in price with inferior boxes and still show the assembly plant an attractive profit.

Interested parties are invited to address



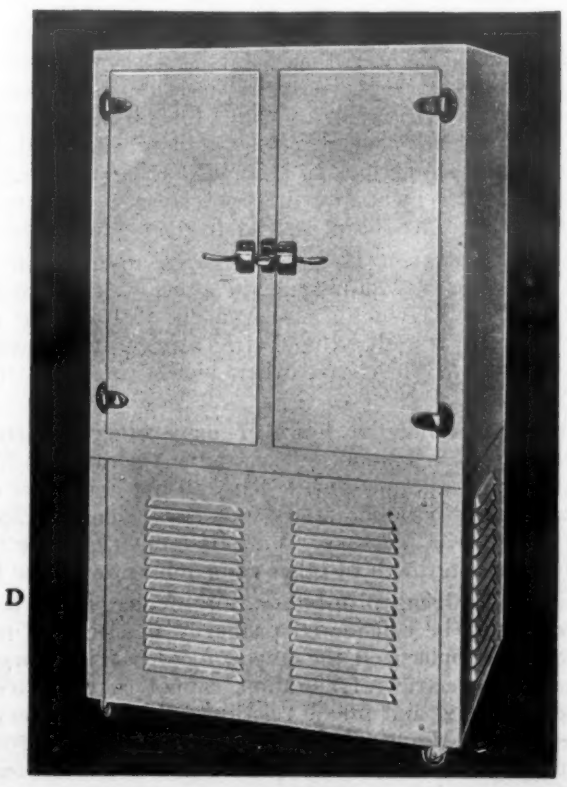
PLYWOOD
HASKELITE
PLYMETL

GEO. R. MEYERCORD, *President*

Haskelite Manufacturing Corp.

133 W. Washington Street

Chicago, Illinois



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MARCH 14, 1928

Mass Production

WHEN any man achieves an outstanding success the public immediately wants to know the "secret." A few persistent individuals will read a magazine article, or even a whole book, which purports to expound the methods by which the successful man attained his distinction. But the public much prefers to have that secret in a single sentence, something which may be pasted in the hat or framed upon the wall for ready reference.

Industry learns a new trick now and then from its study of successful men. These lessons have a tremendous effect upon the sum total of industrial progress. Not all succeed, it is true, in their application of the principles which are so tritely phrased by the interpreter. Minor factors in the formula, it appears, are sometimes neglected.

Mass production, as exemplified by "Model T," has been a great inspiration to American industry. Countless production executives have viewed the manifestations of this magic recipe with amazement. Many a factory owner, having finally found the answer in two words, has given his desk a resounding whack as he voiced a new-born policy: "We'll do it just like Ford—pick one model and make a million of 'em."

The value of the lesson taught by Detroit's illustrious citizen and the part which it has played in the unparalleled prosperity of the country, can scarcely be overestimated. Mass production has indeed been one of the great discoveries of the age. The fundamental principles involved may be applied to some extent in most every form of industrial activity.

Unfortunately, however, the formula cannot always be applied so as to attain the same degree of economy as resulted in the case of the Dearborn masterpice. Experience resulting from efforts to rival flivver productivity has revealed that the formula is not quite so simple as $a \times b$ equals c.

As in the case of a curve which may be plotted to visualize a mathematical formula, it sometimes happens that the line of profits which starts upward so merrily and hopefully begins, in time, to "flatten out" and take on an aspect which shows that nothing will be gained by further process of multiplication. Some kinds of business, like some geometric curves, start with zero, arrive at a peak and then proceed to return to the zero line.

All of which brings us to that neat little problem which has provided the wizards of Wall Street with so much conversational fodder recently, namely, "Will the history of the automobile history be repeated in electric refrigeration? Will a half dozen companies soon corral the market by the might of mass production?"

If one insists on drawing the parallel, it should be noted in passing that a fairly sizable number of makes and models of cars still seem to be necessary to meet the varied whims of the public, although each company stoutly maintains that it offers the last word in automotive ingenuity and an unsurpassed value for the money. Also, it may be worth while to recognize that there are at least a few factors in the situation wherein the two industries are a wee bit different.

It is quite possible, in fact probable, that there will be some consolidations in the electric refrigeration field. No doubt some of the weak sisters will pass out, due more to lack of engineering or merchandising ability, than to competition. An ample supply of money, it has been demonstrated, is not in itself a guarantee of ability in these directions.

The apparent ease with which one big company has threatened the position of another in the field during the past year, seems to indicate that we may look forward to new and interesting chapters in the story. The number of ELECTRIC REFRIGERATION NEWS subscribers who have enrolled for the two and three-year period (one reader, a Frigidaire man, has paid in advance for ten years) also seems to indicate an expectation that there will be interesting news in the columns of this paper for some time to come.

The Electrical Influence

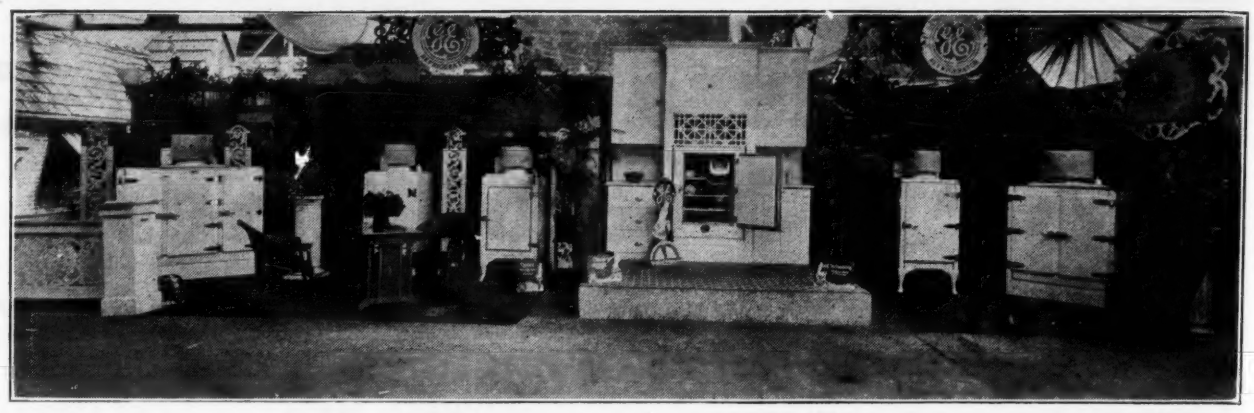
At the recent meeting of the Detroit section of the American Society of Refrigerating Engineers, one of the speakers called attention to three origins from which the refrigeration industry has been derived. The ice box business, he said, came out of the furniture industry and had its beginnings in localities where cheap lumber was available. Refrigeration engineering as a profession, he pointed out, has been supported and developed by the requirements of the cold storage industry. Electric refrigeration, he claimed, has been derived from the automobile industry.

The latter statement is, perhaps, open to question. The relation of Frigidaire to General Motors and the previous connections of such executives as Goss of Kelvinator and Wilson of Copeland give color to this theory. It is also true that the electric refrigeration mechanism bears some resemblance to the gas engine when viewed in terms of design and production.

From a sales standpoint, however, many other important influences have entered into the development of electric refrigeration. National Cash Register methods are still much in evidence in the Frigidaire organization. Servel was organized by public utility interests. General Electric is an integral part of the electrical industry. Various industries have provided the background for the outgrowth of other companies now in the field.

As a merchandising proposition, any device which is operated by electric current must be considered primarily in electrical terms. The NEWS has repeatedly emphasized the importance of this viewpoint. The future development of electric refrigeration cannot be separated from the problems of engineering and public relations which are interwoven with everything electrical. Manufacturers who are now endeavoring to determine the future possibilities of their product in terms of electric refrigeration, should give most serious consideration to the factors which are governing the present trend of electrical development.

G. E. Display Features Built-In Unit at Builders Show



The Electric Utilities Corp., Detroit, in its extensive display called particular attention to the possibilities of the G. E. Unit for built-in apartment house installations

COLORED MODELS DOMINATE DETROIT BUILDERS' SHOW

Brilliant Lacquers and Porcelains Kept Step With the Trend Toward Color

One of the outstanding features of the Tenth Annual Builders' Show held at Convention Hall, Detroit, February 25 to March 7, won the almost unanimous endorsement of the colored equipment of all kinds for the kitchen. Porcelain enameled dishes in delicate shades of lavender, blue and green, kitchen cutlery with red handles, gas ranges with knobs in blue porcelain, coffee pots with yellow handles, and most important of all, electric refrigerators in a spread of colors wide enough to please the most aesthetic tastes, were convincing evidence of the fact that the great American kitchen is fast being converted from an uninteresting part of the house, where the cooking is done, to an interesting, colorful spot, where meals are prepared with a minimum of effort.

Nearly all of the electric refrigeration displays, and there were nine of them, showed at least some touch of color in the models exhibited. In the display of the Detroit branch of the Frigidaire Corp., the new two-tone porcelain domestic units were featured. These models have an exterior finish of white porcelain with trimming in gray porcelain. The hardware, finished in dull silver with a black lined border, harmonizes very pleasingly with the gray trim. In addition to the two-tone models, a Frigidaire water-cooler, ice cream cabinet and frosted coil display were included. In connection with this exhibit a Frigidaire-cooled McCray display case and market cooler were shown.

In the exhibit of the Strelinger-Copeland Co., Detroit distributors, the new Copeland colored domestic units were the center of attraction. The feature of the Copeland display was a 20 cubic foot model in white and robin's egg blue porcelain. The food compartments located on either side of the cooling unit are electrically lighted. The robin's egg blue porcelain parts are confined to the top and the grills in the base so that it is but a few minutes' work to replace these parts with ones of another color that may be desired by the purchaser.

Seeger cabinets finished in porcelain having the appearance of green and gray marble attracted considerable attention. In addition to these units, a multiple installation display, having coils with a capacity of from one to twenty cubic feet, were shown. The standard line of Copeland cooling tanks for connection with the Copeland single cylinder compressor with 1/6 H. P. motor, and having a capacity of from one to fifty cubic feet, was displayed.

Six General Electric models were displayed by the Electric Utilities Corp. The center of the display was one of the smaller models built into a cabinet, illustrating its application to the requirements of apartment house construction. Provision was made for the circulation of air around the coil on the top of the cabinet by the use of an attractively cut out grill which was set in flush with the front of the unit and the cupboard on either side.

Outstanding in the display of the Dalrymple-Kelvinator Co. were two apartment-size models in red and green, the bright colors of which were emphasized by an unusual lighting arrangement which was turned off and on at brief intervals, flooding first one and then the other of the colored units. As a background for these two models, a typical apartment breakfast nook was built in, half of which was painted in red and the other half in green to harmonize with the refrigerators. On the table in this nook was a set of colored dishes harmonizing with the rest of the color scheme.

The apartment installation was given further attention by two built-in units and a display showing the hook-up of a Kelvinator multiple installation. Above the display hung a blue Neon gas sign spelling Kelvinator, and opposite it the current poster being used nationally by Kelvinator.

In keeping with the color trend, Norge-Daniels Co., Detroit, centered their display around a unit finished in white porcelain with black porcelain trimming. The Norge rotary compressor was shown in a cutaway model and also in a unit having a single motor driving two of the rotary compressors, the motor being in the center and the two compressors at each end of the base on which they were mounted. The complete unit is designed for use in multiple installations.

The Detroit branch of the Welsbach Co. displayed six domestic units before a colorful setting. Here again a medium-sized unit, finished in gray lacquer, stood out among the other models finished in the usual white.

The Detroit Absopure branch centered its display around the recently announced "baby grand model," having capacities of four cubic feet or 8.1 square feet. Nine domestic units were shown, one of which finished in a pleasing shade of green attracted considerable attention. An electrically refrigerated bottled water cooler, a number of direct expansion cooling units, and a commercial compressor were included in the display.

Universal Cooler Corp. showed ten domestic models in a booth pleasingly trimmed in green to harmonize with the feature of this display, a unit finished in green lacquer with conventional design on each door. Another unit finished in a light yellow lacquer also seemed to be interesting to many passersby. These two cabinets were filled with colorful and well arranged food loaned by one of the local merchants. A water-cooler for bottled water, the Universal brine tank and compressor, and a display of a model hook-up for multiple installation were also included.

In addition to these nine special electric refrigeration displays, the most complete exhibit of electric refrigeration yet seen in Detroit, a number of the manufacturers placed their units in the model homes, several of which were exhibited at the show.

JOHN S. KRAUSS IS NEW PRESIDENT OF GILMER CO.

The L. H. Gilmer Co., manufacturers of moulded rubber and fabric belts for industrial use, announce a number of changes in their organization effective as of January 1st, 1928, chief of which is that John S. Krauss is the new president.

Mr. Krauss joined the L. H. Gilmer Co. as factory manager. He was later promoted to secretary and treasurer and followed by assuming the duties of vice-president and general manager.

Clever Lighting Effects Used by Kelvinator

The Kelvinator Booth at the Detroit Builders' Show attracted visitors with bright models brought out by an unusual lighting scheme.

Riley Discusses Future Sales Possibilities In Ice Cream Cabinets

Says Per Capita Consumption of Ice Cream Must Be Increased by Increasing Sales of Bulk and Brick to Be Eaten in the Home

By F. B. Riley, Member A. S. R. E.

A MARKETING plan should be based on data and facts well konwn to those responsible for the working out of the plan details.

The machine manufacturer who contemplates an active campaign in the refrigerated cabinet field, and by this we mean the entire field of ice cream handling, should thoroughly understand the ice cream business from an "inside" viewpoint, as it actually exists and not as we imagine it might be. He should know the costs of production and distribution, the selling and competitive angles, and what the mechanical method of servicing ice cream will mean in dollars and cents to the ice cream manufacturer and his dealers—the drug store, confectioner, the grocer, roadside stand, etc. He should know as much as the ice cream manufacturer knows about distribution plus accurate information as to machine economies and the possibility of increasing sales by the use of this modern method of servicing the product.

The first seepage of mechanical cabinets into the ice cream field occurred in 1922, and inside of twelve months thereafter the entire ice cream industry was a seething ferment of expectancy and suspicion. A few manufacturers believed the new method would, if grasped immediately, offer a weapon for aggressive warfare against their more cautious competitors who might be caught napping, or who were lulled into inaction with the thought that this new method was too expensive or revolutionary to be taken up seriously by the industry as a whole.

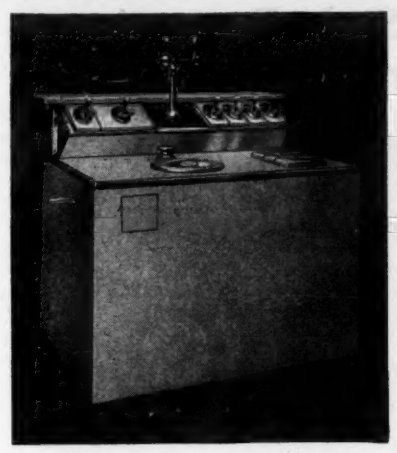
Other manufacturers hesitated to take up the new method of servicing because of the initial cost involved and the thought that large investments in ice servicing equipment would immediately become obsolete, thus involving tremendous losses which could not well be absorbed in a short space of time. For a matter of four years, or until 1926, the mechanically refrigerated cabinets and soda fountains gained ground rapidly for several reasons—the mechanical service was clean, sanitary, economical, efficient and wholly desirable from the standpoint of the retail dealer in ice cream and its evident advantages were appreciated by the consumer of the ice cream and business gravitated to those dealers who used this modern method of servicing their ice cream.

The question of to use, or not use, was almost taken out of the hands of the ice cream manufacturer—it became a question of how and when. Many manufacturers, of course, found it difficult to finance the purchase of refrigerated cabinets and looked with favor on any plan of using their old equipment, that is, to revamp their old ice and salt cabinets by the addition of a detached refrigerating machine of some sort. In addition to the fact that only a very small percentage of the old cabinets were properly insulated for economical operation, the manufacturer found that his customers demanded the new and shiny metal cabinets and not some rehabilitated hybrid that gave plain evidence of doubtful ancestry. The manufacturer either furnished a new cabinet or lost his customer to some more enterprising competitor who early sensed the fact that half measures in providing equipment merely put off the inevitable day of reckoning.

To visualize the possibilities for possible volume of machine sales, we must remember that while the per capita consumption of ice cream is increasing slowly, it is not increasing by leaps and bounds and that we cannot increase the number of soda fountains and expect a proportional increase in gallonage. The logical plan for increasing ice cream sales seems to be to educate the people to eat ice cream in their homes as a part of the daily diet and not merely as a thirst quencher at the fountain. The fact remains, however, that by far the greatest bulk of the daily gallonage is consumed at the fountain and not in the home, and it is not probable that total gallonage can be greatly increased at the fountain, except as population increases or moves about from place to place. The logical plan seems to be for the manufacturer to educate the people to eat more ice cream in the home and from many viewpoints the logical place to buy food products is in the grocery store and not the drug store. This plan for increasing the consumption in the home involves a plan for so packaging the cream that it will retain its consistency for one or more hours after it is taken from the store.

The average ice cream manufacturer today is looking for some means of saddling the cabinet cost and servicing on the retail dealer, either through the purchase of a soda fountain mechanically equipped, or through the sale to him of a mechanical cabinet. As a matter of fact there is no reason why the ice cream manufacturer should provide a mechanical cabinet any more than he should finance the soda fountain for his dealers. It is simply a custom which has grown up in the industry and which has, because of the perishable nature of the merchandise, demanded facilities which the retailer did not, nor could reasonably be expected to have available. The total gallonage would probably not be affected adversely if twenty to thirty per cent of present retail outlets were wiped out overnight—we refer here to the dealers handling 200 gallons or less per year and the number in this class is surprisingly large. It takes imagination to see how a manufacturer can profitably provide a mechanical cabinet on a 200 gallon volume and the dealer is usually too close to the twilight zone of insolvency to make the purchase himself.

New means of handling, or merchandising, ice cream may develop additional possibilities for machines. Vending machines for coated ice cream bars, etc., may become a profitable outlet but these new merchandising plans are children of the future and we are living in the present while casting an eye towards the new day ahead of us. There is no question but that the mechanical cabinet was in large measure responsible for the tremendous advances made in the small machine industry during the years 1922 to 1925 and brought about a machine consciousness in the public mind that might otherwise have been delayed several years. On every hand there was what amounted to a public demonstration of the practicability and perfection of a machine which had been thought of by the public at large as an ideal but not fully developed mechanism with great future possibilities and enchantments.



The Revolvo-Euduro Fountainette

manner which makes them rat- and vermin-proof, set up on adjustable legs to meet practically any floor condition, capable of easy removal so that the equipment may be stored in proper location during the winter months where desired, attractive in appearance and built for rapid dispensing.

Not only is it of great interest to the ice cream manufacturer, looking for increased gallonage and new stops, but it is also of primal interest to the refrigeration machinery dealer, as another outlet for his equipment.

The dealer may sell this directly to the customer as he would sell a showcase in conjunction with his refrigeration unit to a butcher or delicatessen. The profit is inviting, the service is little and the sales resistance slight.

The Revolvo-Enduro fountainette is built as small as 42 inches in length by 30 inches in width, and even this little piece of equipment contains a capacity of 20 gallons of ice cream, 5 syrups, 3 crushed fruits, a 2-gallon milk jar and pump and a double draught arm, cooled by thermo-siphon system.

The Coming of the Fountainette

Self-Contained Outfit at Low Cost Widens Field for Electric Refrigeration

THE past five years has seen a radical change in the refrigeration of practically all small types of stores. Prior to that time, an effort had been made to install refrigeration machinery, but it was limited to the larger butcher shops and other concerns capable of installing equipment in the neighborhood of 1-ton capacity. There was not that vast field of stores using a comparatively small amount of refrigeration, who continued to use ice to take care of their requirements. The refrigeration machinery dealer of today, reaching out for broader fields, has contacted this particular field and is rapidly developing it. This constant search for new prospects has led through the various phases of the ice cream trade, such as ice cream cabinets, so-called "bob-tail" units, and up into the soda fountain class.

The soda fountain of the past, however, has been a solid, well built product, permanently or semi-permanently installed in the building at great installation expense and comparatively high cost, because of the fact that in most instances it was a specialty job.

There has developed a vast field between the average soda fountain and the dispenser of ice cream from ice cream cabinets alone, and this field has not been developed because there was no equipment to satisfactorily meet the need.

The demand of this field approximated a piece of equipment capable of serving ice cream over the counter, or packing cream to be taken home, or serving sodas to be dispensed over the counter. It demanded, also, a piece of equipment light in structure, easily connected and disconnected, built of materials which would minimize depreciation, capable of cheap overhauling, operated with a small capacity unit, and selling at a price considerably under the cost of fountains and nearer the price of cabinets.

Meeting the "Hot Dog" Market

This type of equipment is in great demand among recreation parlors, "hot-dog" stands, cigar stands, small sandwich shops, cafeterias, small lunch rooms in schools, and the like. With this field in mind, the Revolvo-Enduro fountainette has been developed and is now being marketed, produced of materials which cannot warp, corrode or disintegrate, constructed in a

OIL BURNER GULF COMPANY

Makes Profit *for* Dealers

WHEN a dealer secures the Gulf Oil Burner Franchise, he has a valuable and sound merchandising proposition—sound because of years of proved good selling—sound because of the excellent performance given by Gulf Oil Burners in all types of heating plants—sound because the Gulf Oil Burner has behind it the engineering knowledge, manufacturing skill and merchandising ability of the Gulf Organization.

This valuable franchise, including unusual co-operation and sales helps, is still available to a small number of dealers whose qualifications meet our requirements.

Write now for full details.

THE GULF OIL BURNER CO.
Dept. C-3, 1627 Chestnut Street
Philadelphia, Pa.

"EBCO"

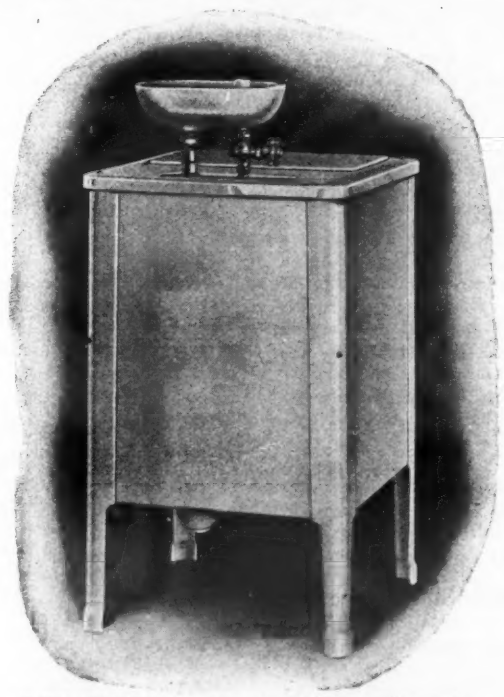
ELECTRICAL COOLER FOUNTAINS

"EBCO" water coolers for mechanical refrigeration have been on the market for three years. The experimental stage has been passed. Thousands of "EBCOS" have been installed and are giving satisfactory service in some of the largest factories and mills.

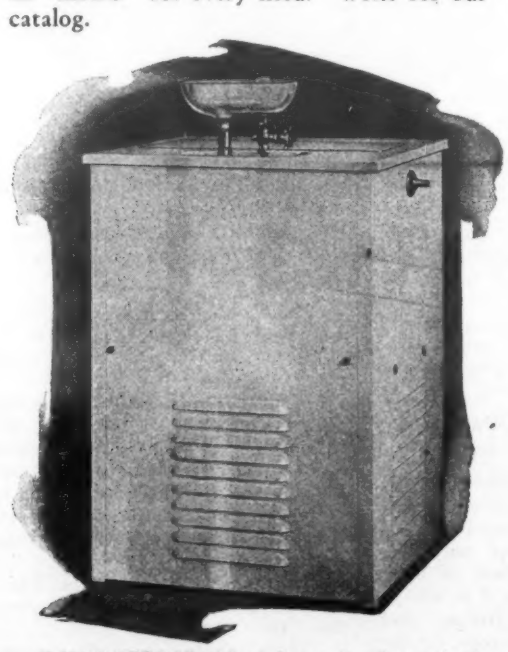
There is an "EBCO" electrical cooler suitable for all conditions, including the smallest for office use and the largest for industrial use or for circulating water. They come in either white or green finish and are built strong to withstand the hardest use.

"EBCO" coolers are constructed to take the standard equipment of the principal manufacturers of refrigerating machinery. Compressors may be either housed or set remote from the cooler.

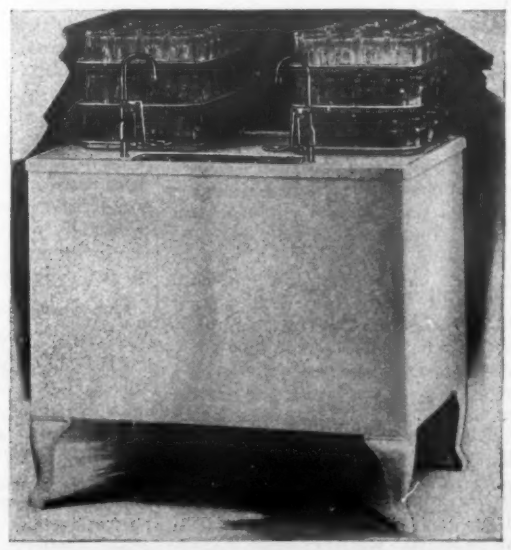
Increase your 1928 sales by selling "EBCO" coolers for use with your machine. There is an "EBCO" for every need. Write for our catalog.



C-304 "EBCO" Water Cooler without cooling unit self contained in cabinet. All porcelain enamel, improved angle stream bubbler and self closing valve.



K-411-E "EBCO" with cooling unit self contained, angle stream bubbler and self closing regulating valve. Top and bowl porcelain enamel, integral condensation basin in top. Finish of cabinet White Duco.



C-329 "EBCO" Cafeteria Cooler Fountain with two figure 3 glass fillers. Recessed top and legs porcelain enamel. Cabinet White Duco.

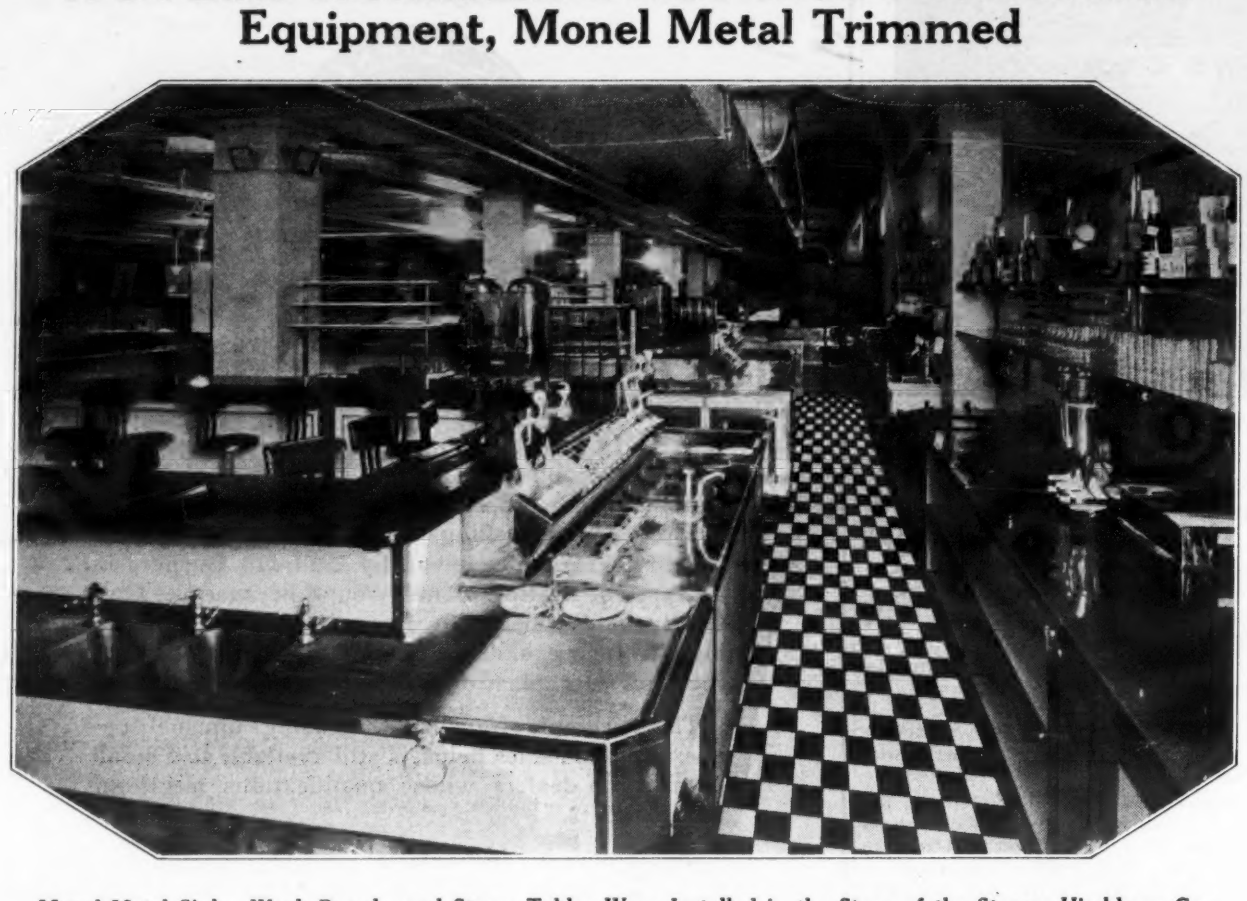
Write for Catalog

THE D. A. EBINGER SANITARY MFG. CO.
LUCAS STREET **COLUMBUS, OHIO**

Write for Catalog

Manufacturers also of Ventilated Closets, Urinals, Wash Sinks and Steel Partitions for Toilet Rooms

A De Luxe Installation of Red Cross Soda Fountain Equipment, Monel Metal Trimmed



Monel Metal Sinks, Work Boards, and Steam Tables Were Installed in the Store of the Strouss-Hirshberg Co., Youngstown, Ohio, by the Bishop & Babcock Sales Co., Cleveland

GETTING LOCAL INTERESTS BEHIND THE SALES PLAN

(*Continued from Page 6, Column 3*)

"A competent window display specialist should be at the service of the participating firms and make the rounds of their stores, with material for working out the display. There should be a definite allotment of window space each month to this campaign. Artificial foods, uniform materials, paints, photographs, streamers, explanatory cards, etc., should be available to the participating companies from the league, committee or central station directing the activity.

Show Rooms

"Periodic featuring of the show room of participating dealers will be a most effective aid in keeping electric refrigeration before the public. Banners, cards, streamers and drapes supplied by the league, committee or central station should be used in making the show rooms distinctive and to focus attention on this movement.

"From the advertising, direct mail and other educational features of this activity, the public will obtain an appreciation of the fundamental advantages of electric refrigeration. The interest so aroused in electric refrigeration can be crystallized into sales through properly organized lectures and demonstrations.

"Most central stations have facilities for conducting demonstrations and have people on their staff trained to give lectures. Where the Plan is being conducted under league or committee auspices, advantage should be taken of these facilities by making them a part of the scheduled operations. Lectures before groups of the housewives whose names appear on the selected mailing list are most desirable and a special invitation should be extended to them to attend. In communities where electric cooking schools are held by manufacturers or the central station, every effort should be made to have a considerable part of the time devoted to the preservation of food through electric refrigeration.

"To assist in the presentation of a suitable lecture, there is available from The Society for Electric Development, a presentation of the subject in lecture form entitled "General Talk on Electric Refrigeration."

Radio Talks

"Since the better preservation of food is arousing widespread interest, electric refrigeration, being a most effective means to this end, is a very definite public benefit. This thought should be presented to the local broadcasting station with a view to providing the opportunity for bringing these facts before the public with particular regard to the general welfare. Suitable radio talks can be built around the stories suggested for newspaper use.

Exhibitions

"As a means of dramatizing the whole subject of electric refrigeration and crystallizing into definite action the interest aroused by the educational mediums already described, it is advisable to stage a comprehensive Electric Refrigeration Exhibition. The size and nature of the exhibition will depend upon local conditions and the details should be worked out in conformity with the general program adopted for the activity.

"Wherever possible, advantage should be taken of public exhibitions held locally. Home Building, Civic, Food, Women's Work, Industrial and other exhibitions, county fairs and the like each afford an opportunity for promoting the idea which should be investigated. Exhibits used in this connection should stress the educational side.

"A manual entitled, "Organizing and Conducting Domestic Electric Refrigerator Shows and Demonstrations," procurable from The Society for Electrical Development, suggests a complete plan of the procedure for those wishing to capitalize on the experience of others.

Truck Banners

Arrangements should be made for every truck and business car of all participating companies to carry suitable banners. The advertising value of large numbers of what are in effect 'moving billboards' cannot be over-stated. They carry the story into both business and residential districts. These banners, uniform in size, color and text, should be provided by the league, committee or central station sposoring the program. In some communities arrangements can be made to supplement this moving billboard advertising by arranging with the street railway authorities to carry similar banners on the front and rear of all street cars.

The use of street car cards is recommended especially where the central station operates the street railway.

Billboards

"Representations should be made to the central station, manufacturers and others using outdoor advertising to allocate some of their board space to advertisements presenting the one great thought behind this program—use Electric Refrigeration.

Salesmen's Meetings

"Every sales executive, salesman, saleswoman and contact employee of all the participating companies in any way connected with electric refrigeration should be made intimately familiar with the objectives and technique of the program, for full advantage should be taken of all possible contacts with the public. The information may be imparted most effectually and enthusiasm aroused and sustained through periodical meetings of this personnel.

"Each of them should receive a compiete outline of the campaign and be supplied with copies of all material to be used. They should be encouraged to talk about the general subject of food preservation by electric refrigeration in their daily contacts as part of their sales work. Meetings shall be addressed by sales managers and others qualified to impart information that will be of assistance in the work. The usual technique of setting up sales quotas, arousing interest through competitive methods and plans followed ordinarily in the conduct of selling activities by central stations, manufacturers and others will naturally be followed.

The Central Station Which Does Not Merchandise

"While the procedure described in the foregoing is applicable to almost every local situation, it should be pointed out that the central station which does not merchandise is in even greater need of committee or group action because it is almost entirely dependent on the initiative and aggressiveness of the sales forces of the other outlets in the community, which require co-ordination to be effective. This fact does not alter the need for leadership by the central station in the activity."

"The success of the activity will be assured through careful planning and proper utilization of the various parts of the program. A definite schedule should be established for the releases of advertising, news stories and direct mail pieces in relation to each other and to radio talks, lectures, demonstrations, exhibitions, etc.

Newspaper Advertisements

"Copy and illustrations for twelve suggested advertisements appear on pages 17 to 28. In order to attract attention and have the message read, it is advisable to employ sufficient space to assure prominence on the page. This copy can be modified and adapted to suit local conditions. The signature at the bottom of the copy will depend upon which local body operates the Plan—a committee, a section of the electrical league or the central station. Good advertising practice suggests that a distinctive type face be selected and used throughout the complete stories of advertisements.

"Manufacturrs and individual dealers should arrange to tie their local advertising in with this educational program. This can be effected by having some of their advertising appear in the same issue as those of the activity, and with the advertisements of other firms during the intermediate period. Proofs of the advertisements should be secured in quantity before the type is broken down. These proofs are to be used as enclosures in the direct mail campaign and in other ways, as affixing to dealers' windows, exhibiting them on counters and in the show rooms of the participating companies.

Newspaper Stories

"On page 31 will be found twelve stories written for use in the news columns, preferably on the Woman's Page. They are designed to sell the idea of electric refrigeration and support the advertising. It is advisable to have them signed by someone in the locality, preferably a woman with an established reputation as a home economics specialist or the editor of the Woman's Page of the newspaper. These stories can be supplemented by articles on electric refrigeration obtained from other sources and news items of electric refrigeration matters of special local interest.

Direct Mail Advertising

"The importance of the direct mail features of the Plan cannot be over emphasized. The letters and literature will be found on pages 6 to 15. Unlike the usual mail campaign, this is selective in character, mailings being confined to a comparatively small list of carefully chosen individuals in the community considered to be real prospects. This mailing list is also the basis for actual solicitation by the participating companies.

"To make the most of this phase of the activity, attention should be paid to the following:

"Build the list from families with a combined income of, say $3,000 or over;

"It may prove a paying investment to place the names of the members of the sales force of participating companies on the mailing list so they may be kept informed of what has gone to prospects;

"Arrange for the details of addressing, signing, mailing, etc., to be handled at one point for the entire territory, thereby obtaining economy through volume operations;

"Arrange to have the mailing pieces actually posted in the locality for which they are intended;

"The signature, original or reproduced, should be of the person selected to head up the activity—in the case of the league, the chairman of refrigeration section; in the case of a committee, the chairman; in the case of the central station, the commercial or resident manager.

"This campaign does not interfere in any way with the advertising or direct mail activities of manufacturers or of their distributors and local agents. It is assumed that such individual company activities will be arranged to tie in with and support the campaign.

"Concurrent window displays in all participating dealers' windows once each month, using the same decorative idea, colors and materials, will do much to bring a consciousness of electric refrigeration to the public.

E. T. L. Service for Domestic and Commercial Electric Refrigeration

Testing and experimental laboratory service for *manufacturer, distributor, central station*
Test data exclusive property of client

ELECTRICAL TESTING LABORATORIES

80th Street and East End Avenue, NEW YORK CITY, N. Y.

AT LAST—

An Efficient Electric Milk Cooling Cabinet

built exclusively for cooling milk on the dairy farm. Shipped to dealers complete with coils, expansion valve and thermostat —ready to attach compressor. Can be used with most any compressor on the market.

Cools Milk Below 50°

Quickly - Efficiently - Economically

Sold only through Electric Refrigeration Dealers
Full Information and Prices Sent on Request

EASTERN SALES CO.
Refrigeration Division
West Chester - Pennsylvania

EXCELSIOR FILLS THE GAP

Excelsior Refrigerating Machines fill the gap which has existed between the domestic type machines and the larger commercial units, meeting the constantly increasing demand for fractional ton capacities. Modern in every detail, these thoroughly practical commercial machines meet every requirement of the merchant-users.

Butchers, Restaurants, Grocers, Delicatessens, Florists, etc., need refrigeration all the year-around and form a ready and waiting prospect list for Excelsior units. The Excelsior line unfolds new opportunities for business expansion and profits.

May we tell you the whole story?

Excelsior Motor Mfg. & Supply Co.
Refrigeration Division
3701 Cortland St., Chicago, Ill.

PIPE *and* TUBE FITTINGS

Made From Brass Rod, Castings or Forgings

For many years we have specialized in the manufacture of brass fittings, in small sizes, for connecting brass and copper tubing.

In addition to fittings made from brass rod and castings, we are now producing similar parts made from BRASS FORGINGS to meet the requirements of Iceless Refrigerator Manufacturers for fittings of a superior type. These fittings will not leak gas, air or liquids under mechanical pressure. They have the compact grain structure, high tensile strength and smooth, flawless surfaces found only in forgings. Our forged fittings are accurately machined, carefully inspected and equal to the most exacting requirements.

Send a sample or blue-print for quotations on parts of a special nature. Catalogue No. R-30, showing our complete line of standard fittings will be mailed on request.

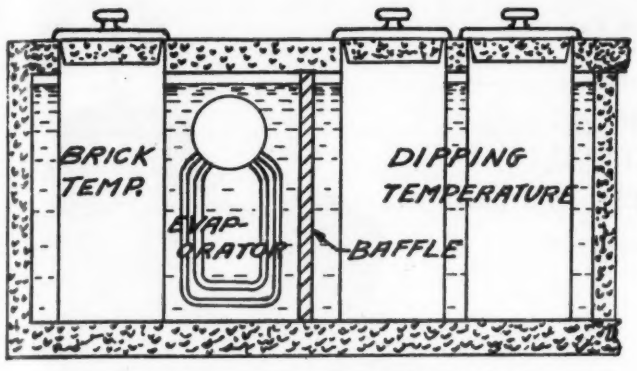
COMMONWEALTH BRASS CORPORATION
DETROIT 5781-5835 COMMONWEALTH AVE. MICH.

Electric Refrigeration as Applied to the Soda Fountain*

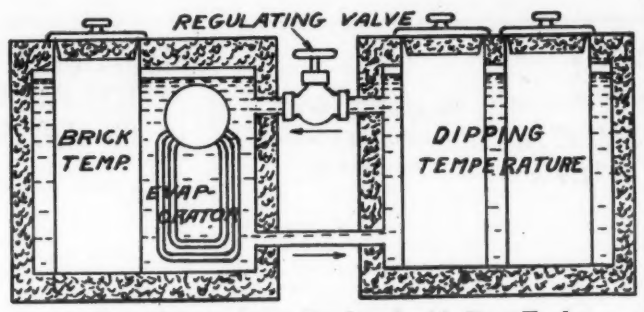
A Consideration of Methods of Controlling Brine Temperature so as to Meet the Needs of Different Sections of the Same Fountain

Copyright 1927 by Nizer Corporation

ONE of the results of the advent and widespread use of the automatic electric ice cream cabinet, has been the creation of a desire on the part of the ice cream retailer for more complete electrical equipment for the keeping and handling of his products. Automatic electric refrigeration as applied to the storage of ice cream has been so successful that the desire is now to extend its benefits to the rest of the so-called fountain products. The result has been a great increase in the demand for automatic iceless fountains. Iceless fountains are now made and marketed in many styles and sizes, ranging from models which are little more than iceless cabinets to which a few pieces of auxiliary apparatus have been added, to models which furnish two or more temperatures for the storage of ice cream, and also adequate refrigeration for all the other products which are dispensed from the fountain.



1—How Two Temperatures are Produced in One Tank



2—Two Temperatures Produced with Two Tanks

It is not the purpose of this lesson to deal specifically with any one particular fountain or type of fountain. It is rather its purpose to show how refrigeration is usually applied to the various parts of the fountain and to deal with some of the refrigeration problems which are likely to present themselves to the cabinet service man who, in nearly all cases of trouble, will be called upon to make the necessary repairs and adjustments. The usual modern fountain supplies refrigeration for the following purposes:

(1) Ice cream storage.
(2) Drinking water cooling.
(3) Soda water cooling.
(4) Bottled goods and bulk goods cooling.
(5) Freezing of ice for drinks.
(6) Storage of cracked ice.
(7) Cooling of fruits and syrups.

From the extensiveness of the above list, it should be very apparent that the refrigerating load on even the smallest fountain can be quite large and will always be in excess of the load for a cabinet of anywhere near the same ice cream holding capacity. This item will be taken up in greater detail later on in the lesson, but it should nevertheless be carefully noted here and constantly borne in mind.

Ice Cream Storage

The storage and refrigeration of ice cream in the modern electrically refrigerated fountain is essentially the same as in the electric ice cream cabinet, with the difference in some of the larger and more modern fountains that provision is made whereby two different storage temperatures for ice cream may be maintained. This makes possible the storage of brick ice cream at the very low temperature which is best suited for this product and at the same time provides a somewhat higher temperature for the bulk ice cream, which is dished for consumption at the fountain. Two methods for obtaining these two different temperatures are commonly employed.

With One Brine Tank

In the first method one brine tank, similar to the brine tank of an ice cream cabinet, is used. Extending entirely across the tank, however, there is placed a heat retarding partition, so that there is a difference of temperature between the two portions of the tank. This temperature difference depends upon the thickness and nature of the heat retarding partition and that portion of the tank in which the evaporator is placed, is, of course, the colder and is used for the storage of the brick ice cream. The sketch shows such an arrangement as has been described.

With Two Brine Tanks

The second method for the production of two ice cream storage temperatures differs from the first in that two separate brine tanks are used. The evaporator is placed in the tank in which the lower temperature is to be maintained. The second brine tank is connected to the first by two brine circulating pipes, one near the bottom and the other close to the top of the tank. The brine from the colder tank circulates through these pipes of its own accord by means of thermo-syphon action and, therefore, maintains the temperature of the second tank somewhat higher than that of the first. To permit control of the temperature difference between the two tanks, a valve is placed in the top line. This valve is manually operated and is under the control of the fountain attendant. As the valve is closed the circulation of brine between the two tanks is reduced and the temperature of the second tank is made correspondingly higher than that of the first.

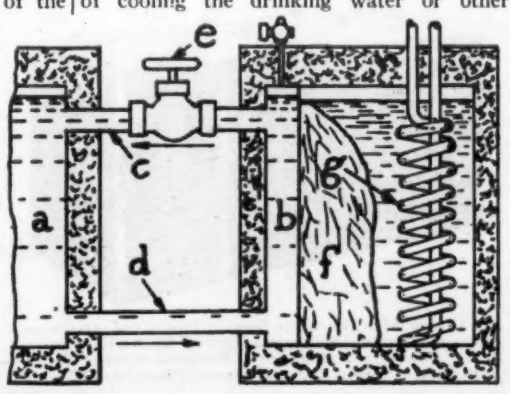
It would seem that the second method of producing the two temperatures might be more costly to construct than the first. It has, however, the advantage of temperature adjustment and regulation which the other does not possess, and in addition, it permits separating the two ice cream compartments, should such a separation be desirable. Sketch number two shows how this method is usually worked out.

Water Cooling

The cooling of drinking water and other liquids probably furnishes the greatest portion of the refrigeration load placed on the fountain, and the importance of providing sufficient compressor capacity to take care of it cannot be over-estimated. The fountain manufacturer can usually be depended upon to recommend the proper compressor equipment, when the correct information regarding the amount of water to be cooled by the fountain is given him. The greatest trouble in this connection comes from under-rating the quantity of water which the fountain will be called upon to handle. When furnishing this information to the fountain manufacturer, the greatest amount of water used by the fountain and not the average should always be given. Also, the maximum range of cooling should always be specified. Since it requires the abstraction of one heat unit (1 B. T. U.) to cool one pound of water one degree Fahrenheit, it is easy for the service man himself to compute the amount of refrigeration which will be required by the liquid cooler in this fountain. In nearly all types of iceless fountains, the cooling of the water is accomplished by passing it through coils or cooling elements which are submerged in a bath of sweet water, the temperature of which is maintained at a low degree. There are, however, two different methods of cooling the bath of water in which the cooling coils are immersed. One method makes use of an auxiliary brine tank and convection currents, while the other employs a separate evaporator. To designate which system is used, fountains are sometimes referred to as one boiler or two boiler fountains.

Cooling With Brine

Sketch number three shows the method of cooling the drinking water or other liquids when a separate evaporator is not used.



3—Cooling Water with Auxiliary Brine Tank

In the above sketch, (a) represents one of the main brine tanks in which there is brine at ice cream temperature. (b) is the small auxiliary brine tank in the water bath through which cold brine is circulated by thermo-syphon action through the pipes (c) and (d). (e) is a hand-controlled valve by which the flow of brine and therefore the ice formation (f) may be controlled. (g) is the cooling coils immersed in the ice cold water so that the drinking water or other liquids in passing through them is reduced to a temperature only slightly higher than 32°. The fact that the ice formation (f) is not allowed to extend entirely across the tank precludes the possibility of freezing the contents of the cooling coils, even when there is no circulation through them. In some less expensive constructions the cooling bath may be found directly adjacent to the main brine tank. This makes the auxiliary tank unnecessary, but in doing away with this unit flexibility of control is lost.

Cooling With Separate Evaporator

When the two boiler system is employed, the auxiliary tank is replaced with a separate evaporator. This evaporator is submerged in sweet water just as in the case of the auxiliary tank and, therefore, surrounds itself with an ice formation which has exactly the same function as in the first example. The operating temperature of the water cooling evaporator must, of course, be higher than that of the evaporator in the ice cream brine tank, so that some sort of pressure reducing valve must be used in conjunction with it. This valve is usually so placed that it may be conveniently reached and adjusted by the service man or fountain attendant, so that the ice formation and cooling water temperature may be controlled. Sketch number four illustrates such a system.

In connection with most fountains there

(*Continued on Page 12*)

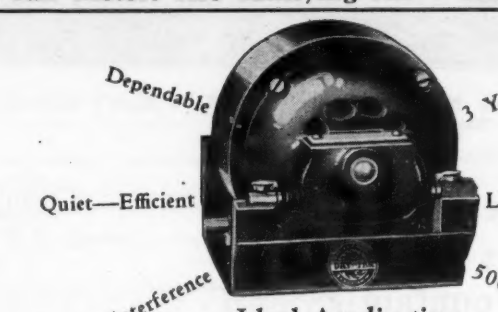
*Lesson No. 17 from the Correspondence Training Course, which is offered by the Nizer division of Kelvinator Corporation for the training of sales and service men.

DAY-FAN REFRIGERATOR MOTOR

Built for the

Manufacturer • Distributor • User

Day-Fan Motors Are Satisfying All — They Must Be Right



Ideal Application for Apartment Houses

A Day-Fan Motor is the heart of electric refrigeration. Needing so little attention, and never failing under severest conditions, USERS are assured of protection to FOOD and HEALTH.

Sample test motor shipped to manufacturer on request

Day-Fan Electric Company
Dayton, Ohio

WORLD'S LARGEST MANUFACTURER OF REFRIGERATORS FOR ALL PURPOSES

Now the *New Improved* McCRAY Cooler

FOR MEAT MERCHANTS everywhere, an end to spoilage losses... Lower operating expenses... Bigger profits! There, briefly, is the service of this new improved cooler, No. 185, now offered by McCray.

Thirty-eight years of close contact with meat merchant's needs, and our whole life-time of experience in building highest quality refrigerators, have gone into this new cooler.

Beneath its handsome oak and opal-glass exterior is the staunchness which marks every detail of McCray construction. The famous McCray system insures circulating cold air in every compartment. Extra heavy walls. Pure corkboard insulation, hydrolene sealed. Corners and top lock-jointed and bolted. Sturdy bronze hardware, heavily nickelled, with improved fasteners. These are some details of the McCray quality which insures life-time service—keeping food better, longer, at less expense.

For Electric or Mechanical Refrigeration, or ice. No remodelling or changing required to install any type machine. With either ice or machine McCray construction insures efficient, economical operation. More than 250,000 satisfied users attest McCray quality.

Send the Coupon Now for further information about the new improved cooler, the new Display-all refrigerator case, *and other models to meet your specific needs.* Remember there is a McCray for every refrigerator purpose—in stores, markets, hotels, restaurants, hospitals, institutions, florist shops and homes.

Remember the fine appearance of this cooler is matched by efficiency and economy, proved in service for more than a third of a century. Ask any McCray user.

Dealers in Electric refrigeration are invited to write for further information regarding the complete McCray line of refrigerators, all available for use with electric refrigeration

SALESROOMS IN ALL PRINCIPAL CITIES (See Telephone Directory)

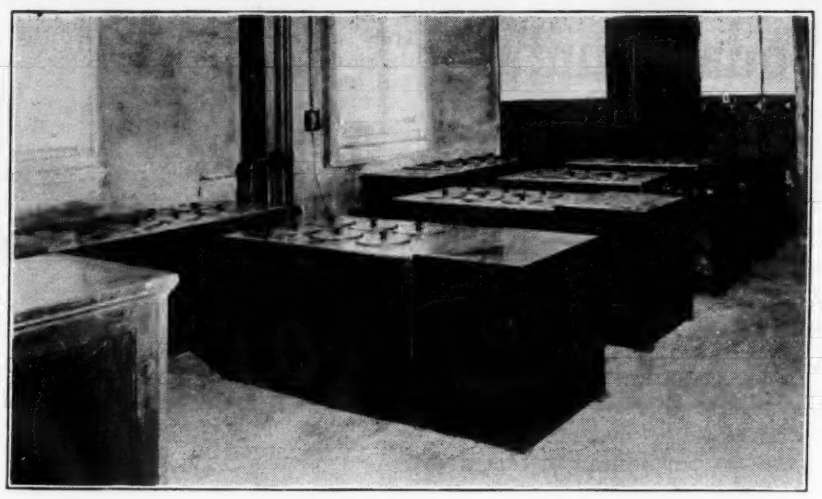
McCRAY REFRIGERATORS

McCray Refrigerator Sales Corporation, Dept. 66, Kendallville, Ind.
Gentlemen: Please send free book [ ] "How to Make More Money in Food Retailing."
Also, without obligation, send information about refrigerators [ ] the New Improved No. 185 Cooler, [ ] other refrigerators for grocers, [ ] for meat markets, [ ] for restaurants and hotels, [ ] hospitals, institutions, [ ] florist shops, [ ] homes.

Name_____
City_____
State_____

Ice Cream Served in World's Largest Ball Park from Savage Cabinets

The Yankee Stadium, New York City, with Babe Ruth's Favorite Bleachers in the Distance



Individual Brick Ice Cream is Served from Three Banks of Cabinets Like the One Shown Above

Sheboygan Appliance Co. to Handle Frigidaire

The Sheboygan Appliance Co., recently organized by George Resch and A. W. Zander, has opened a store in Sheboygan, Wis., and is handling Frigidaire and other electrical appliances.

Drinking Water Faucet

Standard equipment on the best known refrigerators and water coolers. Write for sample and quotation.

CORDLEY & HAYES
1 Leonard Street
NEW YORK, N. Y.

Controlling Brine Temperatures In the Soda Fountain

Types of Fountain Construction Used in Connection With Electric Refrigeration

(*Continued from Page 11*)

is usually used a considerable quantity of bottled goods, milk, etc., as well as other bulk products, which require refrigeration to prevent them from spoiling or to make them palatable. For these products it is usual to provide a dry storage compartment in which the temperature is maintained in the neighborhood of 45° to 50°. This compartment is refrigerated by placing it adjacent to one of the main brine tanks, thus permitting the low temperature brine in the tank to absorb the heat from the storage compartment. In order to prevent the temperature of the compartment from becoming too low a thin partition of insulating material is usually placed across the surface of the brine tank which is exposed to the compartment. In large fountains where there are two or more brine tanks, it is quite common practice to place the storage compartment between the two tanks, thus providing refrigeration for it from both ends and therefore maintaining the temperature throughout its interior more constant. This compartment is equipped with racks and shelves so that storage may be conveniently accomplished.

Freezing Ice for Drinks

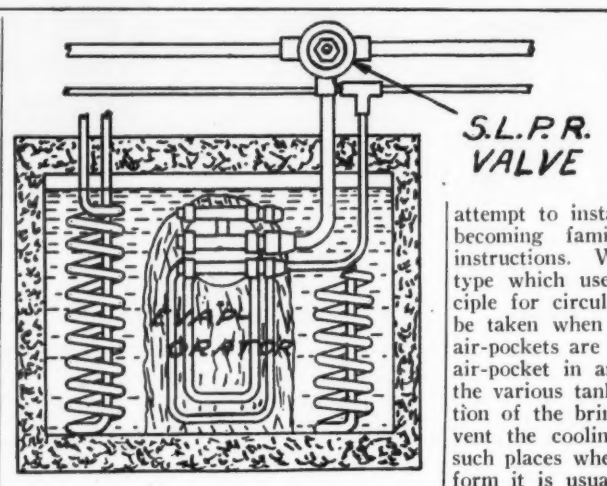
The cooling of the various syrups and soda water in the modern fountain usually results in a drink whose temperature is as low as is desirable. No matter, however, what the temperature of the drink may be, many customers enjoy it better when a small amount of cracked ice is served with it. As a result of this it is quite common practice to build a small compartment into one main brine tank and to equip this compartment with freezing trays in order that ice cubes may be frozen for the benefit of such customers. When this is done it is also usual to provide a second refrigerated compartment in which the ice cubes can be kept after they are removed from the trays. This second compartment is made of material sufficiently strong so that the ice cubes may be crushed in it without harm resulting.

Fruits and Syrups

Under most conditions crushed fruits and syrups keep satisfactorily when maintained at a temperature in the neighborhood of 50°. This is easily and ordinarily done by building the syrup jar and fruit jar rack over the brine tank, so that the bottom of the containers receives refrigeration from the brine tank.

Service and Adjustment

In view of the greater number of products and compartments which must be refrigerated in the modern fountain, and because of the larger number of temperatures which must be maintained there, it follows that service on the fountain is likely to be more complicated and perhaps more frequent than on the more simple ice cream cabinet. The larger size of the fountain and the fact that it cannot be moved about as can the cabinet also tends



4—Cooling Water with Separate Evaporator

to make the work of the service man somewhat more difficult. Success in the matter of fountain service is, however, the result of the same factors as in the case of the cabinet, namely, a thorough understanding of the principles of refrigeration and a complete knowledge of the construction and function of the various parts of the mechanism under consideration. When the service man knows and understands the various units of which the complete fountain is composed, and at the same time understands how the various parts are designed to function, there can be little question regarding the successful outcome of his work.

The control of the temperature throughout the fountain depends somewhat upon which of the already described systems is used in it. In any case, however, the starting and stopping of the compressor should be governed by the temperature in the lowest temperature ice cream compartment. The higher temperatures are then obtained by controlling the temperatures of the auxiliary boiler, if one is used, or by regulating the flow of brine through the auxiliary thermo-syphon brine tank.

Perhaps the most serious complaint that can be had in connection with the fountain is lack of refrigerating capacity. This trouble usually makes itself evident on extremely warm days when a large amount of water is required to be cooled. In some cases the trouble confines itself entirely to the cooling water coils, while in others it affects the entire system by refusing to maintain the proper low temperature in any of the various compartments. There is little, of course, that the service man can do in the face of such difficulty, since there is nothing he can do to increase the capacity of the compressor if it is at the time working properly. The only way to guard against such trouble is by assuring himself, if possible, at the time of the installation, that the compressor unit is sufficiently large for the work it is required to perform. Fortunately most fountain manufacturers have learned their lesson in this connection and the products of the more reliable manufacturers can be depended upon to do all that is claimed for them. In this connection, however, it should be mentioned that small water leaks and drippings can be the source of considerable loss and should, therefore, be carefully guarded against.

Installation

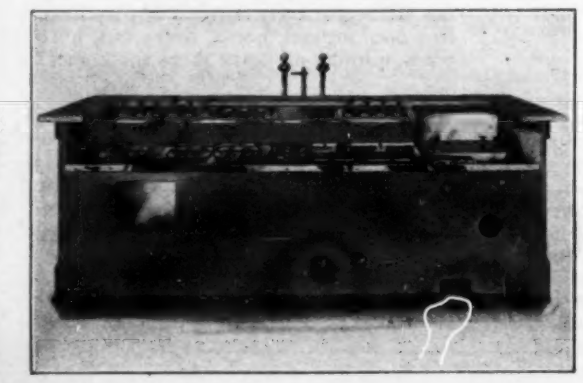
In making a fountain installation, the instructions and directions furnished by the fountain manufacturer should be followed carefully and explicitly in order that the best results may be obtained, and it goes without saying that no service man should attempt to install a fountain without first becoming familiar with the installation instructions. When the fountain is of the type which uses the thermo-syphon principle for circulation of brine, care should be taken when filling the brine tank that air-pockets are not permitted to form. An air-pocket in any of the pipes connecting the various tanks will prevent the circulation of the brine and will, therefore, prevent the cooling of auxiliary tanks. At such places where air-pockets are likely to form it is usual to place a small vent or release valve, so that air may be purged out. Should any of the auxiliary tanks fail to cool themselves properly when the rest of the fountain is in operation this trouble should at once be suspected and the air-vent opened, to relieve the difficulty. As soon as brine begins to issue from the vent, it is an indication that all the air has been removed. There are two other causes which will stop circulation of the brine through the auxiliary tanks and in the case of no or insufficient cooling of the auxiliary tanks they should be checked for. They are insufficient brine in the system, and frozen brine. In order to circulate properly through the system the brine must at all times be maintained above the top of the highest circulating pipes. It is usually quite easy to determine whether or not the system is properly supplied with brine. Brine which is too week and, therefore, partly frozen will, of course, not circulate and will, therefore, result in no cooling of the auxiliary tanks. In the case of such difficulty the system must be allowed to warm until all the brine has returned to liquid state. A portion of it should then be removed and a more concentrated solution added to take its place. Special instructions for the servicing of their products are usually issued by the fountain manufacturers themselves, and these, together with the more general instructions, published in the earlier lessons in connection with the cabinets, will enable the service man to take care of the greater part of his work. It is, therefore, thought best not to devote more space to the question of fountain service at this time.

Conversion of Ice and Salt Fountains

If the service man has at all extensive dealings with the fountain trade, he will sooner or later be faced with the question of whether or not it is possible to convert an existing fountain of the ice and salt type to a satisfactory mechanical type. Many customers have ice and salt fountains which are in good repair and for which they have probably but recently paid considerable money. It is, therefore, natural that they should wish to change them to the new type rather than to sell them at the loss which they would undoubtedly have to sustain. Unfortunately, there are very few cases on record where such changes have been made with any degree of satisfaction. In order to convert an ice and salt fountain to the electrically refrigerated type, it is necessary to almost entirely rebuild the interior of the fountain. Unless the fountain can be removed to a suitable repair shop, and this is not often possible, most of the work must be done in the customer's store, thereby compelling it to be done during the night, when customers are not present. Most ice and salt fountains are not built in a way which lends itself to such a change, and neither are they insulated to the extent required by the more modern method. As a result, the reconstructed fountain is rarely satisfactory and the cost of making the change usually exceeds its final value. In view of all these things, this department would very strongly recommend against the attempt to change the ordinary ice and salt fountain into the mechanically refrigerated type. Even when the ice and salt fountain is very new it is our opinion that better results will be obtained through its disposal rather than its conversion.

The Goss-Rogers Electric Co., Little Rock, Ark., has taken over the franchise in Washington, Benton and Madison counties for Frigidaire.

Modern Fountain Designed to Save Space



The American Soda Fountain Company of Watertown, Boston, Mass., offers this attractive unit for electric operation. It is designed to meet the needs of the average-sized dispenser.

ARIZONA UTILITY OFFERS PRIZES FOR BEST ESSAYS ON GENERAL ELECTRIC UNIT

The Central Arizona Light & Power Co., Phoenix, Ariz., is conducting a prize essay contest on General Electric refrigerators. The contest which closes on St. Patrick's Day, Saturday, March 17, is open to the customers of the company. The rules are so fixed that in order to enter the contest it is necessary for the contestants to visit the display of General Electric refrigerators at the company's office.

The best of the 300-word essays will receive a $325 General Electric refrigerator. The second prize will be a waffle iron and third prize an electric cooker.

In addition to the main contest conducted for residents of Phoenix a second contest is open to high school students.

"We are always glad to receive the NEWS as it contains much information of interest to us."—R. L. Darnall, President, Kelvinator Corporation of Pasadena, 727 E. Colorado St., Pasadena, Calif.

CP Refrigeration

Self-Contained Units from 500 pounds to 4 tons ice melting capacity. Ammonia or methyl chloride refrigerant.

Over 30 years in the refrigerating machine business.

We invite the live wire dealer who seeks to build a permanent business to get in touch with us.

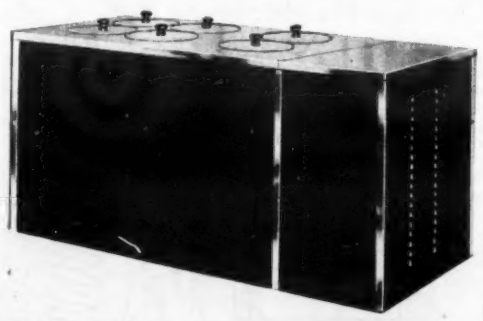
THE CREAMERY PACKAGE MFG. COMPANY
1243 West Washington Blvd. Chicago, Ill.

AUTOMATIC ELECTRIC CONTROLS
NON-DETERIORATING MERCURY SWITCHES
Simple — Dependable *Accurate — Safe*
ABSOLUTE ELKHART CON-TAC-TOR CORPORATION INDIANA

HOUSEHOLD QUALITY SERVICE COMMERCIAL
HERRICK
THE ARISTOCRAT OF REFRIGERATORS
for
ELECTRIC REFRIGERATION
HERRICK REFRIGERATOR CO.,
1019 Cedar St. Waterloo, Iowa

SPECIFY ANSUL SULPHUR DIOXIDE
Write Us—
There is a Satisfied User Near You
The Product With a Factor of Safety
ANHYDROUS SULPHUR DIOXIDE
ANALYZED
Absolute Protection for Refrigeration
ANSUL CHEMICAL COMPANY
MARINETTE, WIS.
Canadian Distributor: Grasselli Chemical Co., Ltd.
Toronto — Montreal

ICE CREAM CABINETS



Ready for installation, Your Freezing Units

Highest Quality Construction
Monel Trim,
Copper Interiors

Insulation: Finest Corkboard, 2" on top, 3" sides, 4" ends, 6" bottoms

Ice Cream Manufacturers Service Depts. can save considerable money by purchasing our Monel Lid Assemblies complete, or Lid Tops, Bottoms, Rubber Rings, separately. Monel Cabinet Covers, Sheet Metal Panels

MOTORS METAL MFG. CO., Detroit, Michigan

SIX DISTRIBUTORS DISPLAY LINES AT WANAMAKER STORE

50 Models Included in Co-operative Display in House Furnishings Department of Philadelphia Store

Six Philadelphia electric refrigeration distributors joined hands, and in co-operation with the John Wanamaker Store, held an electric refrigeration exhibit in the house-furnishing department of the Wanamaker store, February 14 to 25. This exposition was one of the results of the recently formed Electric Refrigeration Trade Association of Philadelphia.

H. C. Jackson, vice-president, Kelvinator-Philadelphia, Inc., and secretary-treasurer of the new association, after a lot of hard work in organizing the show had the pleasure of seeing it go across to the satisfaction of everybody. Not only many sales were made but a great deal of interest was aroused and a large number of live leads obtained by each of the exhibitors.

Merchant & Evans, Zerozone, Kelvinator, Polaraire, General Electric and Electrice were represented on the floor with all of their models totaling more than half a hundred.

While the Wanamaker Store does not carry all of the makes displayed, it was the opinion of Walter Erb, buyer for the electrical section of the house furnishing department, that the time was ripe for the distributors to sell the public the idea of electric refrigeration. He offered them the opportunity and six of them took good advantage of it.

Positions By Lot

Part of the most valuable selling space in the department, one of the main aisles 250 feet long and 16 feet wide, was turned over to the exposition. The six exhibitors drew lots for their positions in the line and naturally the first two numbers out of the hat selected the end spaces. Six of the cabinets, one of each make, were in operation and the other models of the same line were grouped around them.

Each firm had its own salesmen and distributed its own literature, but all of it bore the Wanamaker Store imprint. Prospects obtained during the two weeks will be followed up by representatives of the refrigeration company as coming from Wanamaker's, and the store is protected for sixty days on all sales from these leads.

George A. Hause, head of the Wanamaker house furnishing store, looks upon color for refrigerators as of value chiefly because of its attention value in catching the eye of the customer in a window display.

Window Displays Used

One of the large show windows on Market Street was dressed for the two weeks as only Wanamaker artists could do it with electric refrigerators. A machine in actual operation was featured with other cabinets on the sides and a unit in the center foreground. The exhibitors drew lots as to whose machine was to occupy the various places in the window.

Direct, poster and newspaper advertising were used to call attention to the exposition. Fifteen thousand four-page "stuffers," three by six inches, were printed for direct mailing and distribution during the show. A good quality coated paper, light blue one side and white the other, with attractive type setting was used. It was folded so that the blue was outside.. Three hundred window cards were printed and placed in stores throughout the city which were friendly to the exposition. Some space was used in the regular Wanamaker advertising in the daily papers. All of the publicity must have been good because the attendance was satisfactory throughout the two weeks.

WILL HOLD ELECTRIC SHOW IN SEATTLE

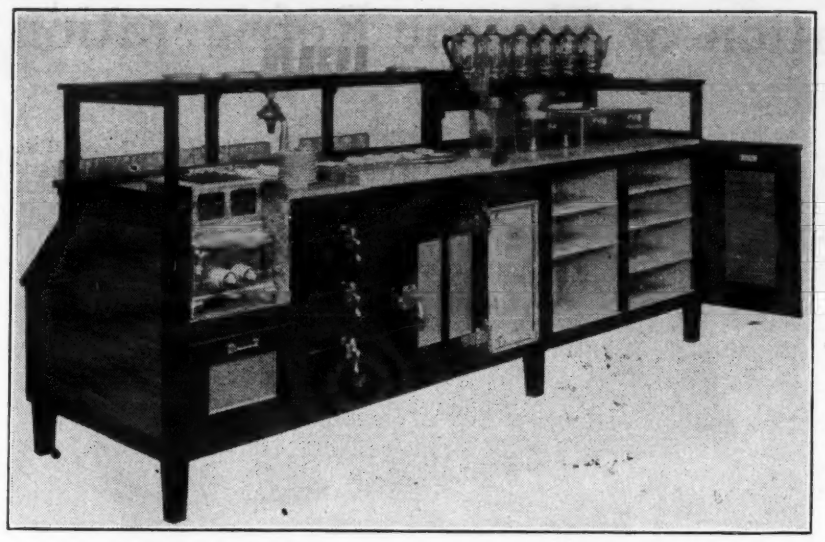
Electric refrigerators will be among the major exhibits at the electrical demonstration to be staged on the second floor of the Ranke Building in Seattle, March 26 to 31. Electrical interests of the city are combining their resources to reflect the newest developments of the "electrical age," and will place in the display examples of the most modern devices. Inasmuch as no admission fee will be charged to view the many devices, a large attendance is expected.

At a similar show held last year at which honors for latest development and praise were bestowed upon the different types of electric refrigerators, there were close to 40,000 persons viewing the attractive electric novelties. The display will be open between ten in the morning and ten at night.

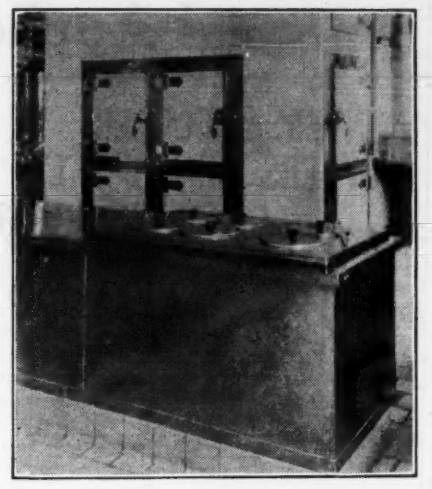
Le Mars, Iowa, G. E. Dealer Appointed

George W. Bach, Sioux City General Electric distributor, has appointed the Hansen-Kaun Hardware Co., Le Mars, Iowa, local General Electric dealer. The Hansen-Kaun Co. is planning an intensive sales campaign to begin at once.

Efficient Dispensing Equipment for Ice Cream and Soda



Schmidt Preparation Counter for the Sandwich Shop



Thesco Ice Cream Cabinet and Refrigerator in a Cincinnati Hospital

MOUSSE VS. MUSH!

With a Recipe for Making Real Ice Cream in the Electric Refrigerator

(*Continued from Page 1, Column 2*)

salesmanship by a low-browed salesman to put an electric refrigerator in her kitchen.

This is exactly what happened to our friend, Mrs. Reagan. (Contrary to literary procedure, that's her real name.)

The Try for Orange Ice

Mrs. Reagan has a new electric refrigerator, of which she's justly proud, and to do us honor the other night she tried for orange ice.

Juice of eight oranges at 90c a dozen, and several other expenses, to say nothing of her time.

The recipe booklet was very specific. Four hours for freezing orange ice. Mrs. Reagan did the usual finger-tip arithmetic and concluded that with dessert coming on about 7:30 o'clock, the orange juice mixture should be entrusted to the freezing chamber early in the afternoon—for safety.

All through dinner we munched lesser viands in anticipation of that home-made orange ice—the grand finale of the feast!

Pan-broiled chicken, fluffy biscuits, an enticing salad paled to insignificance as the dessert course approached.

But alas! This is one of those stories with an unhappy ending.

The orange ice was unmistakably orange, but it missed being ice by about three hours!

"Well, that's strange . . . it didn't get hard . . . the book said four hours for freezing . . . well, just have another piece of cake."

Now, the uncomplimentary commentary on our electric refrigeration industry is this: Mrs. Reagan's cake, baked on a new gas rangew ith oven heat control, was a huge success—layer on layer fluffy and light-textured — and the whole thing achieved in an hour without a thought as to its possible outcome.

If Mrs. Reagan had to choose right now between her gas range and her electric refrigerator—well, which would *you* take, for practical household assistance?

The Trouble Diagnosed

Now this orange ice episode in no way reflects on that particular make of electric refrigerator. Nor on the industry as a whole.

Without being, as I said, a home economics expert, I venture to diagnose the difficulty as due to any one or several of these causes:

The recipe might not have been followed as closely as necessary. This is especially important if gelatine or other thickening agents are used. Mrs. Reagan's refrigerator may not be adjusted to maintain the proper temperature steadily and continuously—it is newly installed. Mrs. Reagan should perhaps experiment with frozen dessert recipes until she is more familiar with every phase of the art, and with her own refrigerator.

But things that should freeze and don't are no more numerous it seems than things which should only attain a palatable firmness—and then before you can turn around have become of such an icy solidity that only a Polar bear could enthuse!

"My wife's frozen desserts are frozen so hard that most of the flavor is taken out of them," writes a man whose ladye is a very faire cook, for I've eaten much and often at her table. "Consequently, she has adopted a plan of freezing in the cooling unit and then setting the pan on the floor of the refrigerator to thaw out!" So wherefore all this expensive excitement about preparing desserts in the electric refrigerator? inquires the masculine mind.

And then there's the vanilla ice cream that invariably turns out vanilla mousse.

A friend told me that she spent the better part of her morning making ice cream for dessert at the family Thanksgiving dinner. and as carefully as she followed directions what she finally obtained was a smooth-frozen whipped cream. Very delicious, of course, but entirely too rich after copious rounds of turkey.

"This tastes fine, Mother," said her boy, loyally, "but it's so rich you can't eat much of it!"

A Recipe that Works

However, to prove my good faith in this matter—and offer something constructive, I hope, after a mild tirade—I'm giving you a recipe for real ice cream, refrigerator ice cream, with the home-made ice cream consistency. It's rich, but it has the "feel."

This recipe is the one used in demonstration work at the Commonwealth Edison Electric Shops, Chicago. It is perfectly frozen in eight hours in a Servel refrigerator kept at forty degrees, but you should experiment with the recipe in your own refrigerator. You'll only have to do it once.

Now, I hope I'm not to be showered with letters from refrigerator manufacturers, telling me how carefully they test all the recipes in their manuals and cook books.

I know they do, and I number among my best friends those conscientious girls who are editing recipe books for manufacturers and demonstrating and teaching in home service departments. (As a comfortable spinster myself, I used to give directions for raising twins on evaporated milk!)

But we just have to face the fact that this refrigerator cookery—or freezery—is new to womenfolk, and the temperatures of all cabinets are not the same even though they're supposed to be.

Women, I believe, are going to need personal instruction as well as more carefully formulated recipes before results are as so eagerly anticipated. I wish that every store selling electric refrigerators, or every central station supplying the electricity for them, could have an experienced instructor work right with the customer, and explain and experiment right in her own kitchen.

Some companies are doing this even now, and it's helping to maintain feminine interest in electric refrigeration.

What we want to guard against is the mental attitude that murmurs "Oh, that frozen stuff is too much trouble; I'll just fix up another rice pudding!"

(Poor papa!)

Mineral Wool

Low in Thermal Conductivity and Low in Cost

The exceptionally low thermal conductivity of Mineral Wool (6.3 B.T.U.) as determined by the U. S. Bureau of Standards, stamp it as the ideal insulating material for

Cold Storage Construction

It assures perfect insulation and maximum efficiency at a low cost.

Mineral Wool is entirely mineral, indestructible, vermin-proof and easy to apply.

Sample and descriptive folder upon request.

U.S. MINERAL WOOL CO.

280 Madison Avenue, New York
Western Connection: Insulating Products Company, 1553 West Madison St., Chicago

CABINETS BY

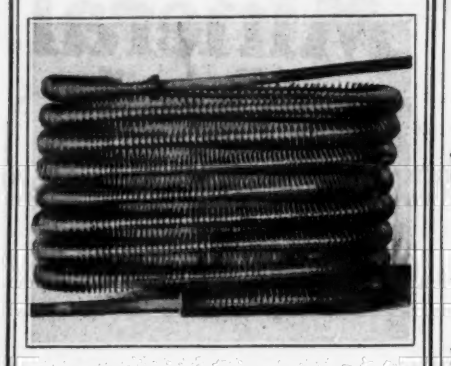
Seeger

SAINT PAUL

Announcing a line of NEW ALL PORCELAIN CABINETS built for Ice, Electrical, Gas or Mechanical Refrigeration.

The novel sales policy for these new Cabinets provides opportunities for Profit in place of Loss.

SEEGER REFRIGERATOR COMPANY
SAINT PAUL, MINNESOTA



ROME CONDENSERS

are formed in any shape of one piece of seamless copper tubing, fitted with heavy gauge copper radiating fin. Rome condensers are five times as efficient as plain tubes

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Efficient—Economical

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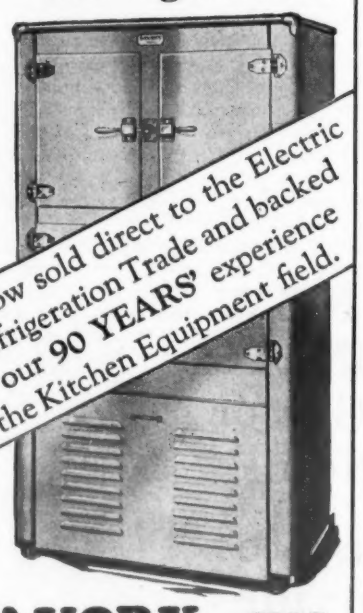

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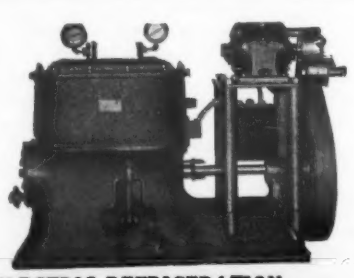

ELECTRIC REFRIGERATION DISTRIBUTORS AND DEALERS

You need the PEERLESS line of commercial units.

PEERLESS units give you a COMPLETE line, ranging from 1 to 10 tons.

Fifteen years of successful manufacturing and merchandising of ice machines are behind the PEERLESS name. Our record warrants your most exacting investigation.

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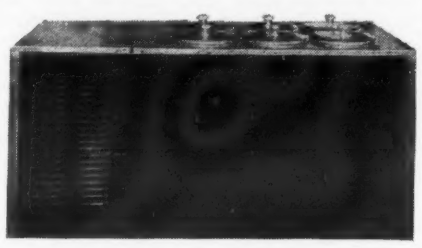
Ice Cream Cabinets the Most Popular Commercial Application of Electric Refrigeration

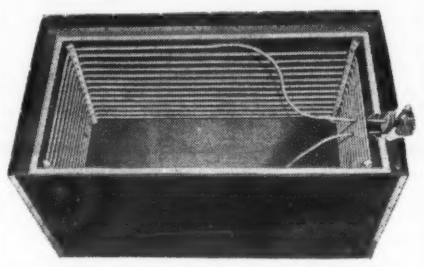
UNINVERSAL COOLER OFFERS ICE AND SALT CONVERSION UNIT

The Universal Cooler Corp., 18th at Howard, Detroit, Mich., in addition to offering either the self-contained or remote type of ice cream cabinet, also has available equipment for the conversion of ice and salt cabinets to electrically refrigerated cabinets. This conversion equipment is particularly appropriate for the small dealer, whose volume of business may not warrant his investing in the more expensive units.

The Universal cooler conversion units are the same as used on the standard cabinet and may be hooked up to the ice and salt cabinet by merely inserting the coil and tank where necessary, as shown in the



Universal Self Contained Unit



Conversion Equipment in Ice and Salt Cabinet

accompanying illustration, with no necessary changes to the cabinet except the boring of two holes in the side or end for tubing. The unit may be attached either beside the cabinet or in some remote location, such as in the basement. A single cylinder compressor unit with a ¼ H. P. motor is used for two-hole cabinet, and a twin-cylinder unit with ⅓ H. P. motor is used on those cabinets having more than two holes.

For those dealers whose ice and salt does not warrant the installation of electric refrigeration, the Universal standard cabinet in either all wood or metal clad are available.

The illustration shows the standard metal clad self-contained type cabinet in the six-hole size. This cabinet is constructed from the same specifications and materials as the standard all wood cabinet, with the addition of baked black enamel panels fitted over the outer wood case.

Insulation is of sheet cork, heat treated with hydrolene, lined with insulating paper. The top and lids are also insulated with sheet cork. The brine tank and can compartments are made of extra heavy copper bearing iron, heavily galvanized. The cooling coil is of ½ inch diameter copper tubing fitted into the brine tank so as to insure uniform refrigeration in all compartments.

The top, lids and corners are of Monel metal, the dimensions of the 6-hole double row cabinet shown here are length, 44 inches; width, 30 inches; height, 30½ inches. The brine capacity is 25 gallons and the shipping weight 625 lbs.

Six-Hole, Double-Row Absopure Cabinet

EIGHT STANDARD REMOTE CABINETS IN THE ABSOPURE LINE

Absopure Frigerator division of the General Necessities Corp., in bringing out a new line of electrically refrigerated ice cream cabinets, has had in mind the dealer who desires his equipment without frills or trimmings. Eight different combinations are available, all of these being of the remote type, the compressor being enclosed in a small metal cabinet finished to match the exterior of the other unit.

Cabinets are available in sizes from 2-hole to 12-hole, the larger models being of the double-row type. The model shown here is in the 6-hole double row type. The exterior of the cabinet is of Wilder metal as are the brine tank and ice cream can sleeves. Insulation is of 3 inch corkboard cemented to the brine tank on the inside and to the exterior metal of the cabinet on the outside, preventing the entrance of air. The top of the cabinet is of wood with 3/16 inch linoleum glued to it. This is trimmed with Monel metal. The standard color is dark green lacquer with other colors optional as ordered.

The freezing unit is a continuous copper coil with an automatic expansion valve. Temperature of the brine is controlled by a thermostat.

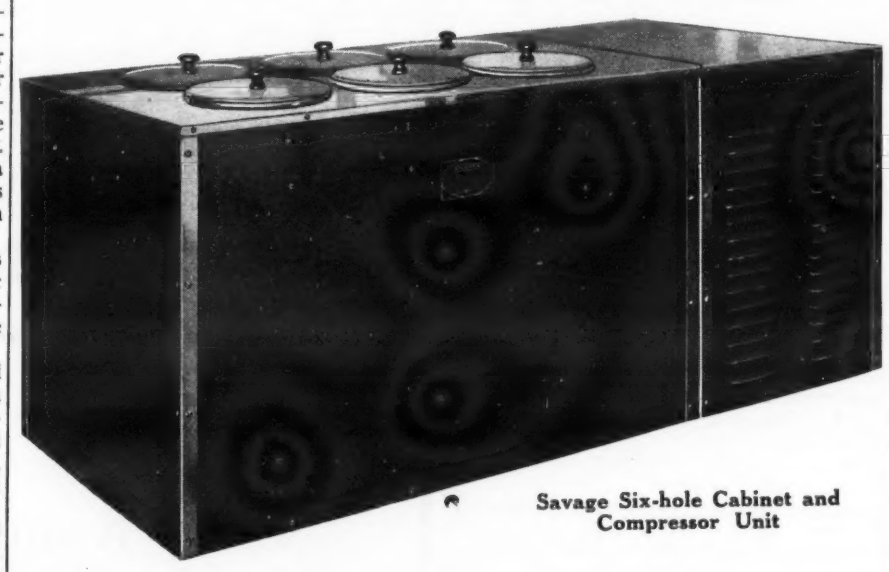
The compressor for this unit is the reciprocating two cylinder type with ½ H. P. motor, feed belt drive, and may be had in either air or water cooled type.

DRAYER AND HANSON CABINET LINE HAS 30 POSSIBLE COMBINATIONS

Drayer & Hanson, 738-744 East Pico St., Los Angeles, Calif., offer ice cream cabinets the various possibilities in size and arrangement of which make up a line of 30 different models. The interior of these cabinets is of 16-ounce cold rolled copper. Thirteen feet of ½-inch copper coil is used for every cubic foot of space in the cabinet. The exterior is of Armco steel with three coats of white Duco. Monel metal trimming is used as well as for the top cover.

The ice cream compartment is separated from the unit compartment with insulation of sheet cork five inches thick in most cases. The insulation on the side wall is of two layers of 2 inch corkboard laid in hot asphalt. The insulation on the bottom is of one layer of 2 inch and one layer of 3 inch corkboard, making an insulation of this material 5 inches thick. One and one-half inch sheet cork insulation is used on the top.

Savage Ice Cream Cabinets Chilled by a Mercury Compressor with Friction Drive



Savage Six-hole Cabinet and Compressor Unit

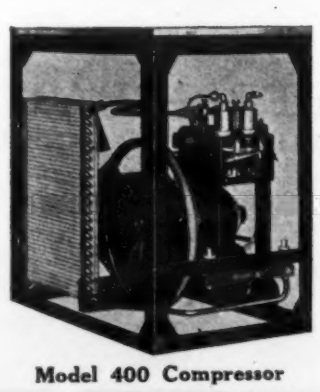
"GOLD NUGGET" MODEL FEATURE OF KELVINATOR-NIZER CABINET LINE

Kelvinator-Nizer electrically refrigerated ice cream cabinets, manufactured by the Nizer division of Kelvinator Corp., are available in a variety of combinations and sizes. They may be had in single or double row, remote or self-contained, air cooled or water cooled styles. The features of the line are the DeLuxe double row remote cabinet, a 12-hole model of which is shown here, and the "Gold Nugget" cabinet, a 3-hole model of which is also shown.

The 12-hole double row cabinet is 80½ inches long, 30 inches wide and 30-1/16 inches high. It has insulation of corkboard 2 inches thick on the top, 3 inches on the side and 4 inches on the bottom. It may be operated with either the "Bull Dog" air cooled ⅓ H. P. gear-driven compressor or with the model "400" air cooled ⅓ H. P. belt-driven compressor which is illustrated here. The "400" compressor is very simple in design and is particularly accessible for service operation. This type of compressor has a record of dependable Kelvinator performance over a period of 12 years.

Kelvinator - Nizer "Gold Nugget" ice cream cabinets were designed for those ice cream dealers whose sales over a year's period run as low as 360 gallons. This cabinet makes it possible for the ice cream manufacturer to install electric refrigeration on these small stops. Cabinets are available in two sizes, 3 and 4-hole, to take care of all types of 20-quart cans. The insulation of sheet corkboard is 2 inches thick on the top, 3 inches on the side and 4 inches on the bottom. The frame is of welded angle iron. The top and lids are of Monel metal. The sides of the cabinet are finished in French gray lacquer. The compressor which is contained in the cabinet is of ¼ H. P., worm gear drive, has a Flintlock type condenser and a pressure control direct from the evaporator. The dimensions of the cabinet are length, 57¾ inches, width, 20-3/16 inches, height, 29¼ inches.

Kelvinator-Nizer 12-Hole, Double-Row Remote Cabinet



Model 400 Compressor

"Gold Nugget," 3-Hole Self-Contained Unit

We will install and put into successful operation a complete porcelain enameling plant for porcelain enameling your refrigerator linings and parts at a reasonable price.

Write for estimate.

The Ferro Enamel Supply Co.

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NOVOID CORKBOARD

For all commercial jobs you will find NOVOID Corkboard Insulation the most satisfactory insulating material for the purpose. It is convenient to use. It comes in 12"x36" and 24"x36" sheets, in 1", 1½", 2", 3", and 4" thicknesses. Shipped in strong fibre containers, each containing 72 board feet. Samples on request.

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FORGED BRASS VALVES *for* Mechanical Refrigeration

Quality Shut-off and Cylinder valves in any standard designs or to your specifications.

KEROTEST MANUFACTURING CO.

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Newly Organized American Institute of Food Distribution Issues Initial Bulletins

New Association Aims to Bring Together Producers and Distributors of Food Products in Order to Stabilize the Business

THE Facts in Food Distribution—A Weekly Digest of Current Information" and "The Facts in the Food Markets—A Weekly Digest of Statistics and Market Opinions" have been issued under date of February 25, 1928, by the organization committee of the American Institute of Food Distribution. The new organization, which was recently initiated by Gordon C. Corbaley, has temporary offices at 67 Wall St., New York City. The purpose of the institute is set forth in the following statement:

"Conditions are not right in the business of producing and distributing food—the most important group of businesses in the United States.

"Our markets are unsettled and our distribution is passing through a period of adjustment that is affecting the status of every one.

"The greatest present need is the conservation that will come from better knowledge.

"The American Institute on Food Distribution is a move to bring together

"Producers of Food
"Manufacturers of Food Products
"Wholesalers and Retailers of Food
"Chain Store Operators
"Brokers Distributing Foods
in a thoughtful working program to

"Assemble and distribute facts about current food markets.

"Digest the important happenings in the changing structure of food distribution that we may individually have better knowledge of what is taking place.

"Learn the truth regarding the fundamental economics of the new food distribution that we each may go through this period of change with a minimum of confusion and financial adjustment.

"With these in mind as definite objectives we associate ourselves together in the interest of better standards of relationship and more orderly business."

The following digest of current information appears in the bulletin, "The Facts in Food Distribution," under the classifications of ice cream, beverages and soda fountains:

Ice Cream

The best field for increasing the consumption of ice cream is as a dessert in the home during the fall and winter months. Only about 36 per cent of ice cream is consumed in the home.—*Western Confectioner,* Dec.

The enormous demand for ice cream in novel forms in California has brought a shortage in the cream supply and caused the state to import butter fat from other states.—*Ice Cream Field,* Jan.

There is an enormous opportunity for manufacturers to increase the consumption of ice cream by working with dealers to increase the attractiveness of their stores, the service to customers and to serve the ice cream in good condition.—*Dairy World,* Jan.

The California State Board of Health advises against the retailing of ice cream from bulk and commends brick packages. —*Western Confectioner,* Dec.

There is no market for 10 cent ice cream confections in Canada. If an article is to have a volume sale at low price, that price has to be 5c; manufacturers state there is little or no money in the 5c confection, except cones.—Canadian Association of Ice Cream Manufacturers, *Dairy and Ice Cream Journal.*

One ice cream company sets aside a fund equivalent to $5 per month per driver, which is paid each year if he has sufficient merits to justify it. Ten merits are credited for meritorious service in avoiding accidents or unusual assistance or good judgment in emergencies or any commendable act out of the strict line of duty. A clear record for six months wins 15 merits. Demerits are given for listed offenses. Eighty per cent of drivers last year had no accidents of any variety.—*Ice Cream Field,* Jan.

Ice cream stores in residential districts have the advantage over downtown stores of offering parking space and instantaneous service to motorists. People will buy in cartons for home use where they would hesitate to telephone downtown for it and have it delivered in a freezer.—*Western Confectioner,* Dec.

A survey of forty ice cream manufacturers showed that eight gave cabinets free, three sold them outright, two rented them to dealers, one retained a half interest, thirteen both sold and rented, two rented and gave them free, two sold and installed free, five sold, rented and installed free, and four did not put them in at all.—*Ice Cream Field,* Jan.

Of the 345,260 retail dealers in ice cream in the United States, approximately 105,000 have been supplied with electric ice cream cabinets according to reports of the cabinet manufacturers. In addition, there are about 20,000 automatically refrigerated soda fountains. Of all the ice cream cabinets sold, 94 per cent have been directly to ice cream manufacturers. Sixty per cent of all cabinets in use have been loaned to retailers free of charge, and approximately 25 per cent have been leased to dealers on a small rental charge. The remaining 15 jer cent are sold to retailers on long-term payment or rebate basis and generally at cost to the ice cream manufacturer.—*Western Confectioner,* Dec.

Beverages and Soda Fountains

Cars with soda fountain equipment are now being operated on the Golden State Limited over the Rock Island and Southern Pacific Lines, between Chicago and Los Angeles, the Overland Limited, from Chicago to San Francisco, the Havana Special from New York to Key West, the Texas Special from St. Louis to San Antonio, the Sunshine Special between the same two cities, and the Sunshine Special from St. Louis to El Paso. A very complete menu is served from 6 o'clock in the morning until midnight.—*Sweets,* Jan.

A reaction away from the nine and ten-ounce big bottle seems to have set in. It seems probable that the eight-ounce bottle will be the popular package during the coming season, where big bottles are used. —*Pacific Bottler,* Jan.

A Pittsburgh bottler added 28 per cent to the dollar volume of his institutional business in 90 days, by means of a contest of route men and salesmen. Gains in new customers and new business from old customers were credited by points.—*Beverage Journal,* Jan.

Survey of 14 plants by the American Bottlers of Carbonated Beverages showed that delivery expense ranged from 9 to 23 cents per case.—*Pacific Bottler,* Jan.

Where the bottling plant employs twelve or more trucks or wagons, a route captain for each four is advisable. These route captains study routes to reduce route time, avoid traffic congestion, and crossing delays. When route men are relieved of everything but the delivery and routine selling, their calls jump on an average of 25 per cent.—*Beverage Journal,* Jan.

FOREIGN SHIPMENTS OF ELECTRIC REFRIGERATORS

January Exports Reported by Bureau of Foreign and Domestic Commerce

Country of Destination	Sets up to 1 Ton Capacity Units	Values
Belgium	52	$ 9,662
Denmark	11	1,401
France	35	6,751
Germany	81	19,515
Italy	21	7,309
Netherlands	5	1,564
Portugal	3	540
Spain	46	10,816
Sweden	8	2,104
Switzerland	66	10,659
United Kingdom	20	1,900
Canada	78	25,185
Guatemala	3	799
Nicaragua	1	180
Panama	13	3,279
Salvador	1	510
Mexico	28	4,700
Bermudas	9	1,648
Barbados	3	820
Trinidad and Tobago	2	285
Other Brit. W. Indies	1	101
Cuba	39	12,568
Dominican Republican	3	1,392
Dutch West Indies	2	305
French West Indies	1	205
Haiti, Republic of	5	1,109
Argentina	29	3,619
Brazil	192	35,577
Chile	2	687
Colombia	19	4,333
Peru	23	5,532
Uruguay	14	2,830
Venezuela	38	8,186
British India	287	59,335
British Malaya	12	2,488
Ceylon	21	2,841
Java and Madura	10	2,313
Hong Kong	1	205
Japan	2	351
Philippine Islands	1	174
Australia	65	17,487
New Zealand	1	162
Union of South Africa	64	19,275
British West Africa	5	960
Egypt	23	3,182
Total	1,346	$294,844

New Copeland Distributor in Washington, D. C.

Sterett and Fleming, Inc., have been placed on a major distributorship basis in Washington, D. C., for the Copeland Products, Inc., of Detroit.

N. H. Eckman

N. H. ECKMAN JOINS SAVAGE ARMS CORP.

The sales organization of the Savage Arms Corp., handling Savage mercury ice cream cabinets, is being materially enlarged. A recent appointment is that of N. H. Eckman as distributor for eastern Pennsylvania, with headquarters in Wilkes-Barre.

Mr. Eckman is widely and favorably known to the ice cream and dairy industry, particularly in this section. His knowledge of the business dates back to 1906, at which time he was connected with the Millville (Pa.) Creamery Co. Some years later he was placed in charge of a wholesale ice cream plant at Wilkes-Barre. Following this he became manager of produce sales for Swift & Co., with office in New York.

Aside from a brief period with the Baldwin Corp., manufacturers of power transmission equipment, Mr. Eckman has devoted his entire business life to the sale of ice cream cabinets. He enjoyed the experience of attending the National Dairy Show, in New Orleans, wherein cabinets were shown for the first time.

Mr. Eckman expresses himself as being very optimistic over conditions in his territory.

Illinois Lipman Co. to Operate in Wisconsin

J. R. Morash, 1252 Prairie Ave., Beloit, has been appointed Wisconsin representative of the Illinois Lipman Refrigeration Co., of Rockford, Ill.

Announcing . . .

ABSOPURE

NEW SENSATIONAL

ICE CREAM CABINETS

Just what the industry has long been waiting for . . .
These cabinets are . . .

NEW . . . BETTER . . . DIFFERENT . . . GREATER IN EFFICIENCY . . . LOW IN COST . . . LOW IN OPERATING EXPENSE . . . LOW IN DEPRECIATION . . . LONG IN LIFE

Complete descriptive folder and prices upon request

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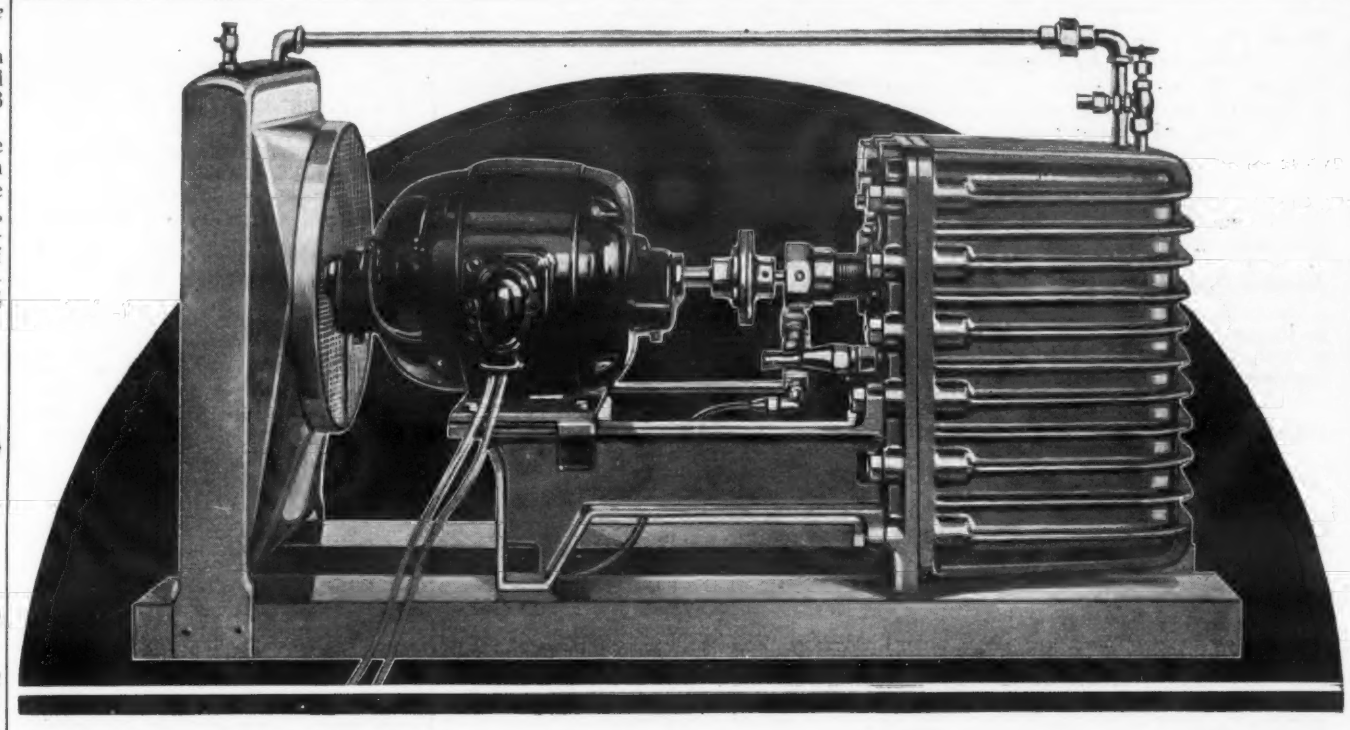
FRIGERATOR

Division of General Necessities Corporation
DAVID A. BROWN, *President*
GENERAL NECESSITIES BUILDING DETROIT, MICH.



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No Belts
No Connecting Rods
No Crankshaft
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No Cylinder Side Thrust
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SEALED COMPRESSOR GUARANTEE

The Haven Compressor is sealed as a guarantee of trouble-free service. Every Haven Compressor, in ordinary use, should last a life-time without loss of efficiency or necessity for adjustments or replacements.

IN the Haven Refrigeration Unit we offer, without fear of contradiction, the simplest, sturdiest, most *dependable* mechanical compressor unit ever built for refrigerating purposes.

This is a strong statement. But all we ask is an opportunity to let you prove it to your own satisfaction. Write for copy of "Bulletin A" which illustrates and explains in detail the engineering principle and mechanical design and operation of this unique unit. The successful result of ten years' experimental work and four years' actual service.

There is no other electric refrigeration unit like the "Haven." No other *can* be like it because Haven design is fully covered by basic patents.

Write today for "Bulletin A" — give yourself an opportunity to judge whether or not this really revolutionary Unit is all we say it is.

HAVEN MANUFACTURING COMPANY, *Milwaukee,* Wis.

HAVEN ELECTRIC REFRIGERATION UNITS *for Domestic and Commercial Service*

BACKED BY A QUARTER CENTURY OF SUCCESSFUL REFRIGERATION EXPERIENCE